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PROSTATECTOMY—SUSPENSION OF THE BLADDER

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SINCE McGill's paper on the "Treatment of Retention of Urine from Prostatic Enlargement," read at the Leeds meeting of the British Medical Association in 1889, interest in the surgery of the prostate has steadily increased. McGill favoured the suprapubic route, and laid down a few details that have been but little added to up to the present time. We have learned more about the function of the prostate and the frequency of malignant disease; and the technique of its removal is so far improved that the patient suffering from prostatism to-day can be given much greater hope of safe relief than could the patient of twenty-three years ago.

The ætiology of prostatic hypertrophy remains obscure. A goodly number of theories have been advanced, but none of them harmonize with all the facts. And it cannot be said that any one theory has so far been at all generally accepted by the profession. Nor do we know any more concerning the ætiology of prostatic atrophy. The deviations from the normal that are associated with a percentage of the cases of prostatic hypertrophy are varied and important. First, of course, is the obstruction to the outflow of the urine from the bladder and to the entrance of instruments into it. Then follow stretching and degeneration of the musculature of the bladder, damage to the kidneys, and, later, disturbance of the circulation and the action of the heart. Autopsy examination of men from sixty to ninety years shows that prostatic hypertrophy is present in only thirty per cent., and that not more than half of these are in any way disturbed by the increased size of the gland.

A very interesting study of prostatic hypertrophy has recently been published by Tandler and Zuckerkandl. Their findings are important in that they present the subject in a new light and make it necessary to review our operative technique. Most of us have hitherto believed that the whole gland was involved in the hypertrophic process and that when we operated we removed the whole prostate in its capsule. They find that in ordinary cases only a limited portion of the prostate is enlarged; that the median lobe which, they state, is anatomically constant and morphologically and embryologically independent, is the part chiefly concerned, and that the lateral lobes and the anterior and posterior commissures, i.e., all the peripheral portions, are pushed aside, undergo pressure atrophy, and represent what we have regarded as the capsule, and that in conjunction with these portions, the part of the prostatic urethra from the colliculus towards the circumference remains unaltered after the usual operation of enucleation. It appears then that only the central lobe, together with a central zone of the gland surrounding the urethra, is removed in the ordinary operation. It follows that the ejaculatory ducts with the colliculus are preserved in typical prostatectomies, as is also the prostatic urethra counting from the colliculus. The examination of the pelvic organs from the outside in patients who have undergone prostatectomy shows the fifth lobe as felt per rectum to be unaltered in outline. Therefore, "hypertrophia prostatæ totalis," in the usual sense, is a misnomer. They claim that the only part involved lies between the internal urethral orifice and the colliculus and that the hypertrophic process affects primarily only those parts which are in contact with that portion of the urethra which is involved in the vesical neck and situated above the colliculus seminalis; in other words, the middle lobe. Those who have seen their specimens in Vienna tell me that they are very clear and leave little, if any, doubt as to the correctness of their views.

There has been a difference of opinion regarding the number of lobes in the prostate. Sir Everard Home first described the third or middle lobe. Griffith, in 1889, expressed the opinion that the middle lobe was independent, "having glands of its own which open on parts of the hinder wall of the prostatic urethra." On the other hand, Pallin, Evatt, and Jones all maintain that the middle lobe is always formed by ingrowths from the lateral lobes.

The anatomy and embryology of the prostate has been recently studied by Lowsley who published his views in the *Journal of Anatomy*, July, 1912. He finds that in the fœtus there is clear

evidence that the prostate is developed from five distinct sets of tubules, and is therefore a gland of five distinct lobes, excluding the subcervical glands of Albarran and also the subtrigonal glands. Lowsley finds that the anterior lobe soon atrophies. He found a definite middle lobe in ninety-seven out of one hundred and three cases examined, including ten fetuses. In five cases the presence of a middle lobe was questionable, and in one it was definitely absent. Kuznitzky found a persistent ventral lobe in one out of every fifteen prostates.

Lowsley's fifth lobe is applied like a cap over the under surface of the lateral lobes, forms the apex of the prostate, and is the part felt by the examiner's finger in the rectum. He states that it is separated from the lateral lobes by a definite and persistent layer of fibrous tissue. His studies convinced him that the number of tubules opening into the urethra varies from fifty-three to seventy-four, the average being sixty-three instead of between twenty and thirty.

As might be expected, this new gross pathology of prostatic hypertrophy is not accepted by all. Thomson Walker, for instance, adheres to the more commonly accepted idea that the whole of each lateral lobe is enlarged and is generally removed, although he admits that he could "never find any prostatic gland ducts opening on the posterior wall of the normal urethra below the verumontanum," and believes that "the gland tubules which may be seen in the middle line in this position are processes from the lateral lobes and are absorbed into them when hypertrophy takes place." That it is not difficult to leave a portion of the prostate, to leave behind, indeed, enough of the prostate to continue the hindrance to the outflow of urine, I have observed on several occasions. In three or four instances I have removed a considerable portion of the prostate, over two and three years after prostatectomy had been performed, or at least after an operation at which the patient was assured that the prostate had been removed. In one instance the man told me that his prostate had been removed three times. At the fourth operation I removed a prostate as large as a small hen's egg. In all these cases a sinus had persisted and the patient had been unable to pass his urine naturally. In one the first operation had been by the perineal route; in two by the suprapubic route. In some cases, certainly, it is possible to separate the removed prostate into several more or less distinctly encapsuled portions. In the above cases one would seem justified in concluding that the first operation had been imperfectly carried out, or

that prostatic tissue left behind had subsequently undergone hypertrophy. In favour of the latter view, I may say that in one of the cases referred to the first operation had been carried out by an accomplished and experienced surgeon.

This new conception of Zuckerkandl has an important bearing on our choice of route of approach and on our expectation regarding post-operative disability, especially in reference to sexual competence and potency. It seems quite clear that if only a limited and local hypertrophy is to be removed, and if that hypertrophy is on the vesical rather than the rectal surface, and if the lateral lobes and that part of the urethra distant to the colliculus are not disturbed, that the transvesical approach is more direct and enables the obstructing portion to be removed with less injury to the remaining tissues than when the approach is through the perinæum. It seems also to explain why the perineal approach, by dividing the anterior commissure, is occasionally followed by persistent incontinence. In the suprapubic operation the compressor urethræ is not disturbed. Walker examined the condition of the sphincter in fifty cases and found the constrictor urethræ was the effective sphincter in twenty-four; the vesical sphincter had resumed its normal function in twenty-six, and he believes that these findings strongly contraindicate drainage of the prostatic cavity by the perinæum after suprapubic prostatectomy, as has been suggested and carried out by some surgeons.

Walker has found that the mucous membrane of the urethra is ordinarily divided just above the point where it is held down by the ejaculatory ducts. These ducts are seldom found on or attached to the portion removed. If the verumontanum remains intact and the seminal vesiculæ are not disturbed, there is no injury to that part of the genital system, and he claims that such is the case in a considerable portion of the total number of cases. Now, as to his results. Of forty cases from whom he received full details in regard to the sexual functions, he learned that in fourteen, or 35 per cent., no difference was observed; desire, erection, and ejaculation were normal. Five, or 12·5 per cent., noticed a slight, gradual loss of desire since operation, being otherwise normal. In thirteen, or 32·5 per cent., desire and erection were normal, but there was no discharge of semen. In three, or 7·5 per cent., there was diminished desire, this being usually a continued failure of vigour which had been observed previous to operation; and in five or 12·5 per cent. desire was abolished, and there was no erection and no emission. In two cases, where the sexual function was otherwise normal,

there was pain at the moment of ejaculation. When we remember that the operation as a rule is performed on old men, these results would appear to be rather satisfactory. It could hardly be expected that in cases where the sexual power was already failing that any great improvement would follow the removal of the prostate. The point is that where the sexual vigour was normal before operation the prostatectomy did not lessen it if the general health remained good. In another small class the enlargement of the prostate seemed to act as a sexual excitant and the abnormal desire was one of the chief complaints. In these cases the removal of the prostate was followed by a decline of desire.

Another point of great importance observed by all operators is the remarkable recovery of tone in the musculature of the bladder wall that so often follows the removal of the obstructing prostate. Stricture is a rare sequel. I have not known of any serious narrowing in any of my cases. In one of my very early cases the man returned, I think three times at intervals of a year or more, complaining of some difficulty in micturition. On each occasion I passed two or three sounds without difficulty and he expressed himself as entirely relieved. As a rule, sounds or catheters are easily passed after prostatectomy, but in some cases the tip of a soft instrument seems to find an obstruction in the space from which the gland has been enucleated: a hard gum elastic catheter with the point well curved forward or a steel or silver instrument will pass. I think that in cases where the patient can pass a fair stream, but in which there is difficulty in passing a catheter, that so far as I have observed personally, there is no stricture but a depression at the prostatovesical opening. I have made it a routine practice to pass, immediately after the prostate is removed, a soft rubber catheter through the urethra into the bladder and to a point just internal to the space from which the prostate has been removed. The catheter is used alternately with the suprapubic tube to wash out with hot water, and is allowed to remain thirty-six or forty-eight hours. I have thought that its presence at this time prevented any ragged portion of mucous membrane falling over the prostatovesical or prostatomembranous openings in such a way as to narrow the urethra and become an obstruction. I can't definitely say that any good has been accomplished by this detail, but it appears to me to be a safeguard against subsequent narrowing.

The mortality attending the removal of the hypertrophied prostate, excluding those that are malignant, depends almost entirely on the patient's general condition and particularly on the

degree of renal efficiency. The general experience of operators has demonstrated that hypertrophy of the prostate in a large number of cases is associated with urine of an abnormally low specific gravity: in other words, with renal insufficiency. We know that the specific gravity of the blood serum and of the urine bear a direct relation to each other. If the kidneys fail to excrete effectively for a sufficiently long period, the specific gravity of the blood serum increases, and such patients are ill conditioned to undergo any serious surgical operation or to withstand any serious illness, particularly any general systemic infection.

We have also learned that if the increased intra-vesical pressure due to the hypertrophied prostate can be removed, the kidneys, if not too seriously altered, will quickly recover their secretive power. Relief from high intra-vesical tension may, in some instances, be brought about by frequent catheterization, or by the insertion of a suprapubic drain into the bladder. This fact has given rise to the two-stage operation. We now commonly in cases of low specific gravity do the so-called two-stage operation which has contributed largely to the lowered mortality. There is one other condition well recognized, and that is the gradual formation of a pouch behind and below the prostate and internal meatus. If no steps are taken to prevent it, the bladder, after a prostatectomy, tends to lie in the pelvis at a lower level than normal for two reasons: first, the pouching that has already taken place, and secondly, because the natural supports are somewhat weakened and separated while approaching the bladder. To obviate this I have attached the edges of the incision in the bladder to the edges of the abdominal incision. I pass a catgut suture through the anterior sheath of the rectus and through the edge of the opening into the bladder, and then out again through the bladder wall and anterior rectus sheath, the point of exit from the bladder being one inch above or below the point of entrance. This is then repeated on the other side. I then have two strong supporting sutures that bring the anterior wall of the bladder up to the anterior abdominal wall and retain it there. In addition to the support given to the bladder wall, the prevesical space opened up is narrowed, leaving a smaller surface for absorption, and insuring more rapid repair and an earlier final closure. I am satisfied that by this simple procedure there is less residual urine after the operation and a better functional result. There seems to be much less absorption from the wound, less fever, and a smoother temperature chart. Then when the suprapubic wound closes, the base of the bladder, lying on a higher

level, empties more perfectly, and the second period of temperature disturbance is reduced to a minimum. Large diverticula when present defeat to some extent the object, and in these cases there is more constitutional disturbance, as shown by the temperature chart, both after the primary operation and at the moment of closure of the suprapubic wound.

I think it is very important after removal of the prostate to carefully approximate the edges of the incision in the rectal sheath around the drainage tube to insure against a hernial protrusion later on when the patient is up and going about. I use continuous irrigation with a solution of oxycyanide of mercury, 1 in 5,000, for five, six or seven days in ordinary cases. If there is an unusual degree of cystitis it may be necessary to continue the irrigation a few days longer.

In the twenty-two cases that I have operated on in the Royal Victoria Hospital, the ages ranged from sixty to eighty-seven years. I have employed the suprapubic operation in all of them. The fact that the suprapubic and perineal operations have each such enthusiastic advocates is evidence that neither possesses all the advantages in all cases, and further experience may demonstrate that for certain cases the one is better, and for certain other cases the other. I have had more satisfaction with the suprapubic operation. In ill-conditioned patients with urine of low specific gravity, the suprapubic drain acts admirably. In from three to five or seven days the specific gravity will rise from 1004 or 1006 to 1017, 1018, or 1020, the pus will lessen, and the general condition improve. Something may be accomplished by frequent catheterization, and more by a permanent catheter, but the suprapubic drain is followed by a greater improvement in a shorter time, and I think with less danger to the patient. It is introduced under local or gas-oxygen anaesthesia and opportunity is offered to make an examination of the bladder, remove calculi, if present, and to detect diverticula or new growths. So far I have found the improved renal secretion to be permanent. In two cases the specific gravity of the urine before operation was 1004; in two, 1005; in one, 1006; in one, 1007, and in one, 1008. The urine in the cases with low specific gravity was usually alkaline and generally contained large quantities of pus. The quantity of residual urine varied from two to twenty-four ounces. Eleven cases were done in one stage and eleven in two stages.

In two cases diverticula were discovered. In one there was a large single diverticulum with an opening near the centre of the

fundus of the bladder large enough to admit my forefinger easily and estimated to contain five or six ounces. In the other, there were two diverticula opening at the base of the bladder. Whether or not the ureter opened into the diverticula or by separate openings was not determined. Vesical calculi were present in two cases.

✻✻ The average time of closure of the suprapubic wound and the establishment of normal micturition averaged sixteen days. I attribute the smooth convalescence and early return of natural voiding to the continuous irrigation during the first week or eight days, and, once more, to the suspension of the bladder, as I have described, which brought up the base to a higher level more directly opposite the internal meatus, and to the almost complete obliteration of the prevesical space. Twelve of these patients left the hospital without any residual urine, one with an ounce and a half, one with four drachms, one with seven drachms, and in three cases the presence or absence of residual urine was not determined. In only two cases was the prostate found to be carcinomatous and there was no example of sarcoma. In this respect this series is more than usually favourable, as in large series of cases carcinoma is present in one case in six or seven. Young reported sixty-eight carcinomata among two hundred and fifty enlarged prostates which had been extirpated. Boyd and Geraghty have found that the fifth lobe rarely or never becomes hypertrophied, and that primary cancer of the prostate rarely or never begins in any other portion. There were two deaths and nineteen recoveries. One died from a cardiac lesion associated with extreme emphysema. This man probably should not have been submitted to operation. We overestimated his cardiac power. He had suffered complete retention for three weeks.

The other was a feeble old man eighty-seven years of age. He was brought to the hospital with urinary extravasation into the tissue of the scrotum and extending up over the lower abdomen. He also had multiple, tight, urethral strictures. Free incisions were made over the scrotum and lower abdomen, and a good-sized suprapubic drain placed in the bladder. The bladder was nothing less than an abscess cavity, filled with horribly offensive pus and alkaline urine. The old man should have died in seventy-two hours, but instead of that he gradually recovered and got fairly well, with a good appetite. He got so well that when he and his sons were told that he would have to go with the suprapubic opening the remainder of his life, he objected so strenuously that I was finally persuaded to divide his strictures and enucleate his

prostate. From this operation he recovered splendidly and got out of bed and sat in his chair each day. His urine had a specific gravity of 1022. A few weeks later he developed a low form of pneumonia and cardiac dilatation. His urine became scanty and he finally passed away. He really died of arteriosclerosis.

Tandler and Zuckerkandl made interesting observations on the disposition of the cavity from which the prostate has been removed. The space left immediately becomes smaller than the enucleated tumour. This is to be attributed to the contraction of the walls. The vertical measurement of the space is shortened and the edges of the vesical mucosa and the urethral stump are approximated. The lateral wall and base are contracted so that there exists only a narrow groove as an entrance to the wound beneath the sphincter. A part of the bladder is transferred functionally into the urethra.

To-day prostatectomy performed by one or two stages, as may be indicated, is a safe operation in men whose general condition is such that they can undergo any major operation. The functional results are remarkably good, and enucleation is to be commended whenever there are two or four ounces of residual urine and the nights are disturbed by frequent calls to urinate, instead of resorting to the catheter life which almost universally is soon followed by cystitis and impairment of health.

Since reading this paper I have received the following report from Dr. Grüner, pathologist of the Royal Victoria Hospital,

"The conclusion of the results obtained in thirty-one hospital cases (1912) was that removal was complete in only a few. There was evidence of adenomatous hypertrophy as far as the extremity of the tissue excised.

"There were four cases of carcinoma, exhibiting different types. One came from the vesiculæ, the second was intra-prostatic, and the others (adenocarcinoma) were doubtful. In none of these cases were the pieces of prostate identifiable enough to be able to refer them to the fifth lobe with definiteness."

THE ninth International Physiological Congress will be held at Gröningen from September 2nd to September 6th, under the presidency of Professor H. J. Hamburger.

PENALTIES OF LATE DIAGNOSIS OF DISEASES OF THE URINARY TRACT

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I WISH to present a few contrast cases of common conditions met in practice, with the object of illustrating the advantages of early, exact diagnosis and the results of deferring it.

GONORRHOEA. This disease is usually diagnosed early, but it is often pronounced cured when there are serious probabilities ahead. To take an average case: B. 12411, a contractor, fifty years old, has a gonorrhœal discharge of three days' standing. In three days more no gonococci can be found on the slide. So far all is well, but in eighteen days more shreds appear from the posterior urethra. With continued treatment, at the end of forty-three days the urine is almost clear, and thereafter on repeated examinations of cultures from the vesiculæ seminales, prostate, Cowper's glands and urethral glands no gonococci are found. Perhaps this is the best we can do for our patient; but, left untreated at any stage prior to this, and possibly even at this stage, the following types may develop:

Case 1269, impermeable stricture, operation for which requires retrograde sounding. Back of the stricture site will probably always be a deep-seated infection.

Case K. 499, a man of thirty-eight, gradually becoming sexually impotent. Superadded is an acute cystitis. He has a greatly distended prostate from which much pus is expressed. Massage in large part restores his sexual powers, but after nine months of this his bladder still at times is irritable.

Case C. 717, a man of forty-nine, urinates often, night and day. There is urgency. The prostate is smaller than usual, but it contains pus. There is two ounces of residual urine. One makes out a median bar with the cystoscope, and a contracted internal sphincter with a Kollmann dilator. He therefore has a chronic interstitial prostatitis, from which has developed stricture of the outlet of the bladder. A section is removed with Young's

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punch. It is densely fibrous in structure. Symptoms are relieved, but ejaculation of semen hereafter will take place into the bladder.

Case 12314, an Italian labourer, twenty-eight years old, is unable at any time to hold his water more than fifteen minutes. A stricture has recently been dilated without relief of symptoms. The bladder capacity is two ounces. There are abscesses in the epididymis, perinæum, prostate, and vesicula seminalis on the left side, an interstitial and peri-cystitis. As drainage of all these abscesses does not result in the temperature staying at normal, it seems not improbable that the right kidney is also affected. There are some indefinite signs pointing to this rather than to the left.

I shall not take up time by reporting cases of gonorrhœa in women who have been infected by their husbands.

COLON BACILLUS INFECTION. Case 1246, a bank manager of thirty-one has had bladder spasm off and on for two years so that he has had to consider the proximity of a water-closet in all his business and social relations. There is pus in the urine. On cystoscopy the bladder epithelium is normal, but to the left there is bulging of the floor. This corresponds to the area of a distended vesicula seminalis, and the typical bladder spasm comes on when this is touched with a ureteral catheter. Flakes of pus in the urine contain embedded spermatozoa. He has suffered for two years in this way. He is practically free of symptoms so long as the vesicle is kept free of tension by massage, but the duct is stenosed from inflammatory congestion, if not from actual fibrosis.

Case 14611, a girl of twelve, has had a pyelitis since babyhood. She is otherwise healthy and gives no symptoms. Her mother refuses to have the pelvis of the kidney irrigated. Should she become pregnant in the future, the enlarging uterus pressing on the ureter may cause dilatation, impaired resistance to the bacillus, and septicæmia. If a stone-forming organism joins in, calculi will likely form.

STAPHYLOCOCCUS AUREUS. This microorganism occurs in alkaline urine. In my experience, if found in pure culture from the bladder or urethral urine, it may be present for protracted periods without stone forming; but it is not infrequently associated with the staphylococcus albus, which has the power of breaking down urea to free ammonia and carbonic acid, the former uniting with magnesium phosphate, the latter with calcium. Add to these salts an inflammatory exudate, and secondary calculi form.

Case A. 15610, a woman twenty-five years old, has had pyuria for two years, dating from her last pregnancy. The right

kidney is enlarged and tender; the left is normal to all tests. A mere shell of right kidney, containing pus and multiple secondary calculi, is removed. Early in the course of this disease there is a chance of cure with urotropin and lavage of the renal pelvis. As it stands, this patient suffered for two years and has lost one kidney.

THE PROTEUS OF HEUSER. I have seen this infection diagnosed only at the Johns Hopkins Hospital in advanced stages, when the cystitis it had set up was deeply interstitial. The chances of cure were well nigh hopeless. The bacillus split up urea, and secondary stones formed rapidly and repeatedly.

TUBERCLE BACILLUS. This disease of the kidney or epididymis is, for surgical purposes, primary in these localities. The tendency of the former is to spread to the bladder and other kidney, of the latter to the prostate and other testis. Early removal of the focus results in cure. My earliest case of renal tuberculosis is No. 12516, in which there was hæmaturia five months previously, followed by the first noticed pus in the urine. Then came left renal colic. To-day he has a right kidney free of tuberculosis. The left is the first source of the tubercle bacilli found in the urine, although the whole bladder is spotted with typical ulcers. With removal of the left kidney one expects the bladder to heal. It does so in a large percentage of cases.

In my experience the next type is far more frequent: Case 1212. The symptoms are referred to the right kidney and the bladder. Cystoscopically, the right side of the bladder only is affected, but the catheters find tubercle bacilli in both ureters. He is placed on tuberculin. To accentuate incidentally how thoroughly a cystitis may mask such conditions, let me add that this case was subsequently operated on suprapubically and again perineally. He died about six months after I saw him.

PROSTATIC ADENOMA. Chase and Tieney in eight hundred and sixteen cases found the death rate of prostatectomy to increase very rapidly with age, being 9 per cent. in the seventh decade, 15 per cent. in the eighth, 33 per cent. in the ninth, and 50 per cent. in the tenth.

Some prostatic growths do not appreciably obstruct urination, at least in their early stages. Usually they do, and then there is back pressure of urine and dilatation of the bladder. Later there is pressure atrophy of the kidney parenchyma, which kind of atrophy, Wilson and Howell affirm, causes permanent loss of function commensurate to its degree. In the second place, obstruction weakens the urinary tract to infection. No microörganism can

obtain a foothold on a normal bladder epithelium—the proteus only excepted. On the other hand, I have never seen a chronically dilated bladder that would not take on a cystitis on simple catheterization. Watson and Cunningham compute the death rate of beginning catheter life at about 20 per cent., due mainly, I believe, to infection from the catheter, but if there is a large amount of residual urine, its withdrawal may cause acute suppression, and this also may cause death. In the later stages of the growth, back pressure uræmia and vesical hæmorrhages may render operative interference much less promising. I believe we delay radical measures too long at present. The death rate of prostatectomy may be reduced by careful preparation, but the number of lives lost during this preparation is much the larger percentage, and this mortality will not be much reduced so long as we think that prostatectomy should be undertaken only as a last resource. I have no early cases to report. The best material I have operated on was case 715 N., a carpenter of sixty-two, with prostatic symptoms for a number of years. Within six months he had had two attacks of urinary fever. Cystoscopically the urethral orifice was distorted by a chestnut-sized growth which covered the left urethral orifice. After enucleation the patient was about the ward in a week, and very active. He still has a chronic cystitis which is troublesome at times, but there is no obstruction to urination.

Case M. 1223, an old gentleman of eighty-four, whose bladder was opened a week previously to remove blood clot. The kidneys now proving competent, although he is handicapped by arteriosclerosis, enlarged heart, anæmia from loss of blood, and local infection, enucleation is undertaken and proves a prolonged business. Death follows a few days after.

PAPILLOMATA OF THE BLADDER. These growths, with time, whatever their primary characteristics, tend to become malignant. If removed suprapubically they frequently recur in the incision, and therefore might require repeated operation on this account. Now that we have fulguration at our disposal, papillomata may be almost painlessly removed through the cystoscope without resort to an anæsthetic, and without interfering with the patient's occupation. I have one case under observation now whose papillomata have at several sittings been fulgurated, and the bladder appears almost normal. He is, however, at the age when tumours are more apt to be malignant, and his condition will be under observation for a considerable time yet.

CANCER OF THE BLADDER. Of the seven or eight cases of

cancer that I have seen in Vancouver not one is living. In every one of them the disease was too far advanced to undertake any but palliative measures. In one of them, however, where the growth appeared to be confined to the roof, removal was attempted. A generous margin of apparently healthy bladder was resected with it. An enlarged gland was then found at the base of the bladder. She died of recurrence in six months. If the profession will only realize that blood in the urine, whenever found, should be traced to its source, and that to delay a diagnosis in these cases is to fritter away a patient's day of grace, such bad results will be less common.

STONE. The chief danger of delaying diagnosis of primary stone is infection. In all kinds of stone, progressive damage to the ureter and kidney results, if there is obstruction to the outflow of urine.

Case P. 580, a man of forty-four, for thirty years, off and on, has been accepted and refused for life insurance on account of intermittent hæmaturia. At no time did symptoms point to the left kidney, and, as he is very fat, palpation is unsatisfactory. Cystoscopy reveals an inflamed trigone and blood coming from the left ureter. The x-ray gave a shadow as of stone. At operation the left kidney was found so stretched that it could not be delivered through an ordinary incision. A large oxalate was removed from the renal pelvis. The kidney is irrevocably damaged and there is still pus in the urine.

MOVABLE KIDNEY. This is a common thing in women, occurring on the right side, and in the majority of cases does not do sufficient harm to attract much attention. It may lie, however, at the bottom of a gastric dilatation, gastric ulcer, or even obstructive jaundice, if the duodenum, where it is attached to the kidney, is dragged down too much. Chronic constipation may be the cause or the effect of the right flexure of the colon dropping with the kidney. The commoner results are torsion of the renal pedicle interfering with the renal blood supply, or folding of the ureter over its opening in the kidney fascia interfering with the outflow of urine. If operation is done early, results are good; if delayed too long, the neurasthenia which follows persistent worrying of the nervous system by pain is too often not cured by nephropexy. Wilson and Howell say: "In the chronic cases the results are unfortunately far from satisfactory. Of a total of seventeen cases, one only was cured, three greatly improved, nine improved, and four remained *in statu quo*." Besides this there is lessened resistance to microbic invasion in the tissues involved, and pyelitis and pyelonephritis are

frequently to be traced to this cause. If staphylococcus aureus is the infecting agent, stone is apt to form.

Case M. 1259. Mrs. M., forty-five years old, has always had a weak back. Has borne two children, now grown up. For one year past she has had cystitis, and a dull ache in the right side, with typical renal colic off and on, and sacro-lumbar pain. She has been subject to severe attacks of indigestion. With collargol injected into the renal pelvis, an x-ray reveals the kidney turned over inwards and lying at the level of the iliac crest. Fixation was satisfactory, as the capsule proper was sclerosed. Four months have elapsed, and there is no return of the colic, and the infection has cleared up with no other treatment. Her indigestion is better on the whole, but is still present in a less degree at times. The sacro-lumbar pain was worse after she got up, perhaps because of prolonged confinement in the dorsal position. It steadily improved with massage, but I doubt if she will ever have the full reserve of nervous energy she would have had if neurasthenia had not developed.

HYPERNEPHROMA. Watson and Cunningham state that up to 1908 there were only two cases of hypernephromata on record that survived operation three years. I have had only three cases for diagnosis. All were so far advanced that diagnosis was simple. Two of these are dead, and the third, which I operated on four months ago, has metastases already far advanced. Considering that this disease is at first limited to the kidney and that hæmaturia is usually the first sign of its presence, urinary blood should be traced to its origin in all cases.

In conclusion let me emphasize:

1. That the importance of the brood of diseases which follow gonorrhœa is not sufficiently recognized in their incipient stages.
2. That in the urinary tract, as elsewhere in the body, it is important to know the chief microbe present in disease.
3. That we should realize more fully that any obstruction to urination causes serious progressive damage.
4. That blood or pus, whenever found in the urine, peremptorily calls for an explanation of its source.

THE FALLACIES OF EXISTING FATALITY RATES

BY H. W. HILL, M.D., D.P.H.

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THE present status of our beliefs concerning the vital statistics of infectious diseases is chaotic. The number of deaths we know with a fair degree of accuracy; and the total deaths we can attribute to their respective causes more or less accurately, depending on a great many factors of varying weight in different localities, and not to be discussed at present. But the number of cases which those deaths represent, or are supposed to represent, I shall show we do not know and cannot know, unless a new source of information, or a new method of obtaining it, is presented; and I shall present both to you; not perfect but improvements.

To illustrate existing conditions. The prevalence of typhoid fever (taken as an example of all the infectious diseases—diphtheria, scarlet fever, tuberculosis, etc.), is calculated very often simply by multiplying the deaths by ten. Ten times the deaths is supposed to give the cases. Thus, twenty-one deaths from typhoid are supposed to represent two hundred and ten cases. The factor ten is used because the belief has become established that the fatality rate of typhoid fever, i.e., the number of deaths which occur amongst one hundred cases, is ten—in brief, that ten per cent. of typhoid cases die. So also, because we are accustomed to believe that about four per cent. of cases of measles die, i.e., that the fatality rate is four, we multiply the deaths from measles by twenty-five and believe that we thus obtain the number of cases which those deaths represent. The reason for thus calculating cases from deaths, instead of determining the cases themselves by actual count, as the deaths are determined, is simply that we know the reported number of cases of typhoid and measles and other infectious diseases to be far, very far, below the truth, while, on the other hand, we believe the number of deaths is fairly accurate.

In the two most important infectious diseases we have, syphilis and tuberculosis, neither deaths, especially in syphilis, nor cases in either disease, are reported accurately enough to permit the application of a fatality rate, even did we know what that rate may be,

although we think we know approximately what it is in tuberculosis, in some places, thanks to Mr. Christopher Easton's work in New York City and to the tuberculosis investigations in Pittsburgh, Pennsylvania.

Here, then, is the root of the fallacy in calculating cases from deaths by the application of an established factor based on the fatality—and the fallacy is this, that we have never had the opportunity of establishing the validity of the factors which we use, because we have never really known the cases. We have been like the ostrich, hiding our heads in the sand. We knew that cases were very inaccurate, and did not dare to use them. Therefore we take a factor established at some previous time, but from equally inaccurate data, and use that with innocent *sans froid*. We never have determined, and never can determine, a factor of this kind, until we know both deaths and cases—and when we know the cases there will be no object in calculating them.

To illustrate the failures of the present method, it is sufficient to remember that in the noted Mankato, Minnesota, typhoid outbreak of 1908, there were thirty-five deaths. On the ordinary basis this would have been interpreted as indicating three hundred and fifty cases; actual investigation of a very minute and thorough character showed five hundred and eleven bed cases, with excellent reasons for believing that there were almost as many more walking cases. But this is not confined to typhoid fever. Applying the factor twenty-five to reported deaths from measles in Minnesota, a total of one thousand cases of measles in the state annually would be deduced. Calculations of the simplest character based on the common knowledge that the majority of persons have measles as children, will show that a population of two million people must necessarily have about twenty-five thousand cases of measles annually.

It has been customary for many years to abuse the medical profession for these tremendous discrepancies between alleged and actual facts; and the non-reporting of infectious diseases by physicians has formed the *motif* of many a public health jeremiad. It is quite true that many physicians do not report the cases they see or only a portion of them, neglecting especially the mild cases, which, of course, are the most dangerous ones. But it is also true that the physician does not see at all a very large proportion of the infectious sick as well as the infectious well. The fear of doctors' bills and of isolation or quarantine, together with the belief that the infectious diseases are a necessary stage in the development of

every child, and that every mother, certainly every grandmother, knows all that is needed for their care, is responsible for this; but however accounted for, the fact remains as a stubborn stumbling block to any accurate determination of the real prevalence of infection. Nor shall we ever know this, the primary essential to a successful campaign for the abolition of infection, until every case is carefully followed up, the contacts examined, and thorough study made of the infected area by experts devoting themselves wholly to such work.

Meantime, however, immensely important data can be secured concerning the natural history of infectious diseases, their distribution and prevalence, by going to the real source of information on this subject, which is not the individual himself, he rarely knows accurately, nor the physician, who almost never knows accurately, but the mother who almost always knows, not only what diseases, but where and when her children have suffered. The method is as simple, direct and accurate as it is possible to achieve at present, with fallible humanity. In brief, it consists in tapping the mine of information held by the mothers of the country through the public school system, and concentrating the half-million items of information secured into compact and practically irrefragable formulæ. The following card is distributed through the schools to the teachers, and when these are returned, tabulated, and summarized for a large area, we shall have, for the first time, really reliable, and as we know from the returns already received, extremely startling information.

LONDON PUBLIC SCHOOLS

1	2
1 Family name	2 Give name in full
3	
3 Address while attending school	
*Strike out words which do not apply	
4 HOME ADDRESS { Township	
{ Village of	
{ City	
COUNTY OF.....	PROVINCE OF.....
5 DATE OF BIRTH.....	6 PLACE OF BIRTH.....
7 GIVE DATES OF RESIDENCE OUTSIDE ONTARIO.....	

HEALTH CENSUS

CONDUCTED BY THE INSTITUTE OF PUBLIC HEALTH, LONDON, ONTARIO

School and Grade		Date of Record		Age
Sex		191		
Student was vaccinated when..... years old Signed..... Mother of Student name of disease	I know that this student had		To be filled out by student's MOTHER if possible, otherwise by person who cared for student during childhood.
		Chicken pox when..... years old Diphtheria when..... years old German Measles when..... years old Infantile Paralysis when..... years old Measles when..... years old Mumps when..... years old Pneumonia when..... years old Rheumatism when..... years old Scarlet Fever when..... years old Smallpox when..... years old Tonsillitis when..... years old Tuberculosis when..... years old Typhoid Fever when..... years old Whooping Cough when..... years old and..... when..... years old		

This method developed from an investigation of poliomyelitis conducted by the writer in Minnesota in 1909. During the investigation, the children examined were recorded as to previous attacks of measles, diphtheria, scarlet fever, whooping cough, etc. The enormous prevalence of these diseases among children of all classes became apparent, and the contrast with the reported prevalence for the same districts was appalling. Hence the plan, gradually developed to its present point by Dr. A. J. Chesley, now Director of the Division of Epidemiology, in the Minnesota State Board of Health. This plan requires the coöperation of the public school system, a coöperation which costs them little in time or trouble, and which we have found most cordially and earnestly entered into in Minnesota, and also in London, Ontario, where the taking of a similar "health census" has been put into practice most successfully.

THE five hundred thousand dollars required to build a new hospital at Victoria, B.C., have now been subscribed. A by-law to grant \$200,000 was submitted to the ratepayers and was accepted; the provincial government has granted a further \$200,000, and over \$100,000 has been collected by private subscription.

MUNICIPAL HEALTH WORK PERTAINING TO INFANT WELFARE

BY ROBERT E. WODEHOUSE

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Ontario*

MANY municipal health departments have been devoting much time, energy, and money in developing this branch of their programme of preventive medicine. Many health associations have been working, separately and coöperatively, along the same line, and many groups of workers have been formed with this sole object in view. Maternity homes, hospitals, and nursing-at-home associations, as well as settlement workers, have been adding their quota of assistance. Philanthropists have been free in their financial assistance. Funds have been established to protect expectant mothers from work and need; to provide physicians and nurses; to supply the mothers with the scientific attention required; to provide milk depôts to supply free milk; to provide Pasteurizing stations to purify the milk; to provide and maintain clinics to properly modify milk mixtures to suit the age and condition of the baby; and to assist associations established to exercise extreme care in the inspecting of dairy herds and the methods of caring for cows and their product until it reaches the mother. This last development procures for the baby a milk termed "certified," as near pure and free from harmful bacteria as possible. The most money and effort, I think, has been expended in caring for the artificially fed baby. This is the natural result, following investigation into the constant factors bearing on the mortality of infants under one year of age; artificially fed babies predominate in numbers to such an extent in the list of unfortunates.

The sentiment aroused by the helplessness of an infant, along with the knowledge of the seriousness of the facts of the situation and the actual results from feeble efforts to correct this loss of life, have brought this movement world-wide popularity. Medical journals contain helpful solutions. Public health periodicals publish statistics. State and municipal health departments have their experts make investigations as to causes and remedies, publish reports for workers and instructive aids in pamphlet form for

distribution to mothers and guardians. The popular magazines and daily press lend their aid by printing hygienic articles on the proper care and feeding of infants and the best methods to use in protecting the milk and feeding utensils. Proprietary food firms pay twenty-five cents for each report a registrar sends them of a baby born, that they may visit the home with their persuasive talk, literature, and samples. The only commendable feature of the last mentioned activity is the evidence of energy to get on the ground early—a secret of no small moment in the success of any undertaking.

The dominant note in all the publicity is the care of the artificially fed baby. It is headlined and pictured to such an extent that it almost becomes a menace. One would be led to believe it was the original, true, and natural method provided by Providence. It tends to establish a false sense of safety in those none too capable to judge. This over-publicity or prominence given to the alternative method to nature, unnecessary in ninety per cent. of babies nursed (a conservative estimate), is unfortunate. It seems to the writer that it should be discouraged in every way possible. If the publications cannot be suppressed, it should warrant the collective efforts, on the part of those who have the work sincerely at heart, to publish just as many articles in the same class of lay journals and dailies. These articles should portray the abnormal percentage of deaths, from intestinal causes, among artificially fed babies, also the crime of feeding artificially before all resources to provide mother's milk have been exhausted. They should encourage protection and education of the prospective mother, to the end that she possess a good quantity and quality of milk for her baby. They should demonstrate the ease with which the breast milk can be maintained in sufficiency, by the mother placing the welfare of her offspring and its supply of food paramount, teaching her to rest and conserve all her energies to this end. No mother has been noted, in the small experience of the writer, to wish wilfully to jeopardize the chances of life of her child. The wrong start in feeding is usually the result of the remarks of some unknowing, careless speaking, disinterested person.

In Fort William, the home city of the writer, the work was undertaken in a meagre way in 1911, the population being nineteen thousand. To start with, the milk supply was hopelessly beyond immediate improvement, to a degree which would likely affect infant mortality. It was resolved to pin the fate of the undertaking to publicity. The evening daily paper lent its assistance by grant-

ing a space of two columns wide by eight inches long, on the front page, for "Hints to Mothers," material to be furnished by and over the signature of the medical officer of health. In the spring the mayor of the city gave a banquet to a hundred people,—doctors, nurses, councillors, members of the Board of Health and women's societies. Papers were read on the state of affairs in this city and in other cities, also on the proper care of mothers and babies. A health visiting nurse was employed, a graduate of the Hospital for Sick Children, Toronto. A pamphlet was compiled, modelled after that of the Chicago Department of Health, "Care of the Baby." A printed copy of it was sent immediately to the home of each baby whose birth was registered. The nurse was furnished with the addresses of the babies registered, and visited the home, discussed the care of the baby and the mother, went into the history of the deaths of any of the mother's previous babies, demonstrated the advantage of mother's milk, advised the mother how to assist herself in maintaining a sufficient quantity and quality, and told the mother of the dangerous fatality attending the substituting of artificial feeding for that of breast milk. She taught the mother by actual demonstration how to hygienically bathe the baby and its clothes. She showed the dangers resulting upon failure to keep the house, kitchen, yard, and lane, as well as the yards of the neighbours, clean, dry, and free of flies. She answered all telephone calls for advice, and visited the homes repeatedly to carry out the orders of visiting physicians for sick babies and encouraged and instructed the mothers.

The infant mortality under one year, due to intestinal causes, reacted as follows:

Year	Population *	Births †	Deaths under One Year from Intestinal Causes during June, July and August
1910.....	19,500	490	63
1911.....	19,900	553	22
1912.....	22,800	706	6

* Population assessor's figures. † Still births excluded.

No knowledge of the percentage of artificially fed babies was available for the year 1910, but no solely breast-fed baby was known to have died from intestinal trouble, and such was the case in 1911 and 1912. Of the babies investigated in 1911 and 1912, the following results were obtained:

Year	Number Investigated	Number Breast Fed	Number per 1,000	Number Artificially Fed	Number per 1,000
1911.....	411	340	827.25	71	172.75
1912.....	730	663	908.219	59	91.781

This shows a reduction of almost fifty per cent. in artificially fed babies. Knowing these results, it was exceedingly interesting to hear an English authority of no less experience than Dr. Janet E. Lane-Claypon, professor of hygiene at King's College, London, state at the recent International Congress of Hygiene, Washington, that the results obtained from the expense and work of providing certified milk of proper modification, were a minimum compared to the returns for the same money spent and the same effort lent in procuring the names of expectant mothers, visiting and instructing them as to the seriousness of failing to nurse their offspring, and the ease with which the child may be raised with safety, if nursed; in impressing on doctors, midwives and nurses, the importance of doing all they possibly can to have mothers nurse their infants; in instilling into these same professional attendants all the available knowledge of aid to mothers in procuring and retaining a good quantity and quality of milk. It is also interesting to read the exhaustive review of Greenwood and Brown, statisticians to the Lister Institute of Preventive Medicine, published in the *Nuttall Journal of Hygiene* for May, 1912. Of five factors they were working on, having a constant bearing on infant mortality, it seems to the writer that only two were proven to be such. They were:

1. A high birth rate tends to be associated with a high infant death rate.
2. The habit of artificially feeding infants has a definite bad effect on the rate of infant mortality.

In concluding it seems to the writer, from the apparent results shown above, that the percentage of artificially fed babies can be reduced, and that this is the most sane and hopeful method of remedying this unfortunate loss of life. It is inexpensive to the municipality. Breast feeding is the cheapest method of feeding an infant, when convenience, cost of product, health and viability of child are considered. Proprietary foods are expensive. Dr. Lane-Claypon made the unqualified statement that where artificial feeding is necessary, records in her work showed that powdered, dry, unchanged milk, gave the best results. Modified, certified and pasteurized milk, when used, ran so many dangers from careless handling, lack of care in protecting milk and feeding utensils in the

household, and of being altered by bacterial action. One health visiting nurse can handle the tubercular and infant work the year round for thirty thousand of population. It appears to the writer that the expenditure for a capable, specially trained nurse, one with a children's hospital training preferred, to undertake this work, will bring much greater return for money spent than any other method of approach. It seems that more time could be spent to advantage in medical schools and in training schools for nurses, in impressing upon the students the importance of the infant receiving the milk of its mother; and in imparting to the students every known available help to assist expectant mothers in attaining this end and retaining a sufficient supply. Finally, a very enterprising step, worthy of copy, is being instituted in London this month (January). A short course of ten days' duration is being given to those engaged in this branch of preventive medicine. It is being conducted in Guy's Hospital, St. Bartholomew's Hospital, St. Marylebone General Dispensary and at the Lister Institute. It covers the best methods for conducting educational work, before and after birth, for fostering a human milk supply for the baby; the most successful methods for conducting infant welfare work; and a scientific grounding on all matters pertaining to it.

DR. M. PAUL BONNIER announces that he has found the cure for the malady known as stage fright. A nasal cauterization, a short and not very painful operation, is, it appears, all that is necessary. Several artists have already submitted to the cure with thoroughly successful results. Among others, an actress of some twenty years' standing, after a single cauterization, so entirely lost the sensations which on a first night had sometimes led even to a withdrawal from the stage that she cannot now conceive how she ever experienced them. An actor, whose stage fright took the form of a perspiration of hands and face so profuse that all make-up was impossible, was cured after two days' treatment, and now wears his false whiskers with ease.—*The Australian Medical Gazette*, October 26th, 1912.

Case Reports

CEREBELLAR ABSCESS OF OTITIC ORIGIN, OPERATION —RECOVERY

ON March 14th, 1912, I was called to see a patient who was said to be very ill, as it was thought that perhaps the illness might be due to ear trouble. On arriving at the house, I found that the patient was a young man (H. McL.), nineteen years of age, who was lying in bed and appeared to be in a very weak state. There was nothing abnormal about the temperature, respiration, or pulse. The patient was very dull and apathetic, but his cerebration was otherwise normal. The fundi and pupils were normal. The right ear was normal, but the left showed a large perforation of the drum membrane and there was some foul-smelling pus in the external auditory meatus. The mastoid was not tender. There was no headache, dizziness, or nystagmus.

I learned from the mother that the boy had had measles when six years old,—complicated by middle ear disease on the left side. This otitis became chronic, and there had been a discharge of pus from the ear at intervals ever since. The history of the present illness was that six weeks previous to my visit he had had an attack of mumps, on both sides (complicated by orchitis), and at this time the left ear was affected and a purulent discharge came from it.

On February 23rd, when he was convalescent from the mumps, he was suddenly prostrated by an attack of headache and vomiting which was believed to be due to an over-indulgence in heavy food before he had fully recovered his health. Five days before I saw him he became very weak and was believed to be dying. At this time his attending physician, Dr. Pare, of Pointe-aux-Trembles, noticed that his pupils were widely dilated. Taking his condition with the history, I decided that there was in all probability an abscess somewhere in his brain—probably in the cerebellum—and ordered his removal to the General Hospital for further observation. When in the hospital it was found that on rotating the eyes to the right (i.e. away from the lesion) a marked nystagmus was produced.

Read at the meeting of the Montreal Medico-Chirurgical Society, January 17th, 1913.

On these somewhat meagre symptoms I decided that the right thing to do was to clean out the left middle ear and mastoid and explore the neighbouring parts of the brain. Let me state here that when the boy had recovered I got from him an account of his disease that would have made the diagnosis much more clear. He told me that at the time of the attack, he had headache, nausea and vomiting, with extreme dizziness, and that this dizziness was present whenever he attempted to lift his head, until he became too weak to attempt to move. These symptoms would reduce the diagnosis to a question between cerebellar abscess and labyrinthal suppuration. The dilatation of the pupils would, under the circumstances, make cerebellar abscess almost certain. The nystagmus before the operation was away from the lesion, which suggests labyrinthine disease—although this symptom must not be absolutely relied on.

On March 16th I exposed the bone over the left mastoid region, which externally appeared normal. On removing the cortical bone, however, the whole mastoid process was found to be filled with a chole-steatomatous mass which was surrounded by and saturated with greenish pus. After cleaning out this chole-steatoma a radical tympano-mastoid exenteration was performed. It was found that there were two large defects in the inner table of the mastoid, so that about an inch of the lateral sinus was exposed in the postero superior region, while in the antero inferior region, between the lower part of the lateral sinus and the external semi-circular canal (Trautman's triangle), the cerebellum was exposed. The bone about this lower opening was very necrotic, and after removing some more of it one could see a small hole in the dura of the cerebellum from which a thin fluid was oozing. On enlarging this hole, a large cavity was entered from which at least two ounces of foul-smelling greenish pus escaped. This abscess cavity was found to be walled off from the healthy tissue by a firm capsule. The abscess cavity was gently irrigated and a drain of rubber-tubing introduced into it, after which the outer wound was dressed with gauze as usual.

By April 25th the opening into the cerebellum had closed completely and the patient left the hospital on May 12th, though there was still some discharge from the mastoid wound.

Since the operation the patient has gained over twenty-five pounds in weight, and feels and looks perfectly well, though there is still a slight discharge from the ear.

SILVER STYLE IN THE NASAL DUCT—REMOVAL AFTER
FORTY YEARS

SOMETHING over a year ago, J. W., a man of fifty-four years of age, came to my clinic at the Montreal General Hospital on account of binocular cataract. Last summer I decided to operate on the left eye. On examining his lachrymal apparatus, which is done as a matter of routine before all cataract operations, I found that while the lower punctum and lid were normal in appearance, there was a peculiar hard mass in the site of the left lachrymal sac. At this juncture the patient volunteered the information that a metal style had been put into his tear canal in England when he was a lad about fourteen years of age. He felt sure, however, that the style had come out not long after it had been put in. An *x*-ray was taken—which showed that the style was still *in situ*—so I removed it and excised the sac on July 9th, 1912.

The upper part of the style, as you can see, seems quite unchanged by its forty years' burial, but the lower end where it projected into the nose is slightly eroded. The punctum and eye-lid, as I said above, looked quite normal, and no one could have said that any previous operation had been performed on canal or eyelid. I removed the style because I feared it might have pus about it, which might infect the aya when operated on for cataract, but as a matter of fact the head of the style was found to be imbedded in a mass of fibrous tissue which cut off all connexion between the lachrymal sac and the aya.

GEORGE H. MATHEWSON.

Montreal.

THE report of the Cape Breton Hospital for Poor Insane for the year 1912 shows that thirty-four patients were admitted during the year, and on December 31st, 1912, there were ninety-eight patients in the hospital. The appropriation for 1912 was \$18,500 and the expenditure \$18,390.14.

Editorial

MEDICAL INSPECTION IN TORONTO SCHOOLS

THE laity in Toronto is never really happy unless it is enjoying the sensations produced by a tempest in a teapot. The latest whirlwind has been caused by Commissioner Starr's action in placing a nominal fine against certain parents who refused to have their children's throats examined by a competent physician. These children had come under medical inspection in the schools and the parents had refused to procure the certificate of exemption required. Possibly the Commissioner was ill-advised in making these fines, although it is apparent that he acted honestly and with a strong desire to help the medical inspection, which all sensible people recognize as an excellent thing.

Reading between the lines in the numerous articles which have been published in the daily press, it is evident that in the majority of cases the parents recognize the benefits of the inspection system, and are glad to avail themselves of the advice given. There will always be certain people who will reject medical advice of any kind, and they will resent such efforts as those of Commissioner Starr with a vigour that will win them a great deal of misplaced sympathy.

Never before has it been so apparent that "Britons never, never, never shall be slaves." The arguments which apply in the discussion of compulsory vaccination do not exist here, and where there are honest differences of opinion regarding the benefits of removal of enlarged tonsils—as there seem to be—a magistrate who undertakes to enforce a doubtful law is bound to find himself in an unpleasant position.

In the meanwhile, children by the hundreds go to the hospitals to have their adenoids and diseased tonsils removed,

and the few who escape the guillotine are scarcely worth quarrelling about. No doubt the virtuous indignation of enraged parents and incensed physicians will subside in due course, and the city will move on to the next sensation.

GEORGE ALEXANDER GIBSON, M.D., D.Sc., LL.D.,
F.R.C.P.E., F.R.S.E.

BBRITISH medicine north of the Tweed loses one of its brightest ornaments and most scholarly exponents in the premature death of Dr. G. A. Gibson, of Edinburgh, which took place in that city on January 18th. It is difficult to write either of his professional or private character, suffering as one is at the moment from a profound sense of personal loss. Not in one sphere alone will Gibson be missed; the Royal Infirmary of Edinburgh, where he worked for twenty-two years, will miss him, the Royal College of Physicians of Edinburgh mourns him who was for ten years its secretary and later vice-chairman of the governors of the medical school of the Royal Colleges; he will be missed in the mansions of the great; but he will be missed most of all in many a humble home in old Edinburgh where from one year's end to the other no sound was more cheering than Gibson's step on the crazy stair—"that'll be Dr. Gibson," and the sufferer sensibly brightened. "Gibson's visit was a ray of sunshine," some one has said. If we had been asked to name the man whom Scottish medicine at this hour could least well spare, there would have been no hesitancy in the answer—Gibson. Only fifty-eight years of age and not yet in receipt of all the honours which would have come to him (he was to have been president of the College of Physicians this winter), death has taken him; and science is the poorer, medicine the emptier, Scotland the sadder.

George Alexander Gibson was born in Perthshire, Scotland, in 1854. His father, a solicitor, had intended him for

the bar, but scientific medicine had marked him for her own. He was educated at Dollar Academy and at the universities of Glasgow and Edinburgh. It was science rather than medicine that first attracted his powerful mind, for in 1874 he graduated B.Sc. at the University of Edinburgh and later D.Sc., taking a geological subject for his thesis. He had already obtained the Falconer Memorial Fellowship in Geology. In 1876 he graduated M.B., C.M., and M.D. in 1881. In 1880 he became F.R.C.P.E. As a student he came under the influence of three great personalities in anatomy, surgery, and medicine, respectively—Professor, now Principal, Sir William Turner, Professor, later Lord, Lister and the late Dr. George Balfour or “heart Balfour” as he was known. Gibson demonstrated in anatomy and never lost his interest in that science; one of his most intimate friends was the late Professor Cunningham, F.R.S. Under Balfour, Gibson naturally turned to cardiology, and one of his earliest papers was on the time-relations of the cardiac cycle in man. In 1876 he was appointed a resident physician in the Edinburgh Royal Infirmary, and thereafter, travelling, he studied in London, Dublin, and Berlin. Dr. Gibson was prominently connected with the extra-mural school of medicine in Edinburgh, that nursery of many fine minds—and was successively tutor in clinical medicine, lecturer in materia medica, and lecturer on the principles and practice of medicine. In 1897 he became lecturer on clinical medicine in the Royal Infirmary. During these years Dr. Gibson travelled in France, Germany, Italy, and in America, gaining experience and making friends. Gibson was a great deal more than the successful general practitioner and consultant; he was a man of wide culture and varied reading and had collected a splendid library. His knowledge of French and German was intimate, his knowledge of the classics a real and working one. The writer remembers his coming into the library one morning just before going off by train to a consultation and, slipping the “Odes of Horace” into his pocket, he said: “There’s something there you don’t

get anywhere else." Gibson probably knew more about the history of medicine, especially in Italy and France, than any other general practitioner of his time.

Cultured in the best sense of the word, not as the pedant but as the man who can enjoy life, Gibson was a very pleasing personality. He undoubtedly possessed a fine constitution which enabled him to get through an amount of physical and mental work impossible to one less splendidly endowed. Eager, active, almost restless in body and mind, Gibson was the much sought-after physician with time for everything, from a meeting of the Town and Gown Association or of the Royal Company of Archers, to reading a paper before the Royal Society of Edinburgh or presiding over a section at a great medical congress. His recreations were golf, curling, and fishing. Dr. Gibson belonged to the Church of Scotland. He has left a widow, a son, and a daughter.

In 1890, in conjunction with Dr. William Russell, of Edinburgh, Dr. Gibson published his "Physical Diagnosis, a guide to methods of clinical investigation"; and in 1892 appeared his learned monograph on "Cheyne-Stokes Respiration," the historical introduction to which is an invaluable epitome. In 1898 there appeared his large work, "The Diseases of the Heart and Aorta," to be followed in 1904 by his "Nervous Affections of the Heart, being the Morrison Lectures for 1902-03." This last mentioned volume is a monument of medical learning, the historical aspect of the subject again figuring prominently; it was translated into German. He was the editor of a "Text-book of Medicine." Besides making a study of cardiac conditions, Dr. Gibson was very interested in the pituitary gland and its recent physiology; he improved the sphygmomanometer.

For many years Dr. Gibson edited the *Edinburgh Medical Journal*, and had filled such important examinations as those at Oxford and Glasgow. As might be expected, schools of medicine other than his own recognized his worth; he was an honorary M.D. of Dublin University, a F.R.C.P. of Ireland;

an honorary B.Sc. of Liverpool; an LL.D. of St. Andrew's University; an honorary B.Sc. of Harvard, U.S.A.; an LL.D. of McGill University, and "Correspondant étranger d'honneur de la Société de Thérapeutique de Paris."

Dr. Gibson had long been a Fellow of the Royal Society of Edinburgh, and had served on its council. He was also inspector of examinations in Ireland under the General Medical Council, and lieutenant-colonel of the General Hospital Territorial Forces. Only last August he delivered the Address in Medicine before the British Medical Association at its meeting in Liverpool. His "Life of Sir William Tennant Gairdner, K.C.B.," has only been published a few weeks. Seeing that Gibson's character and reputation were so exceptional, it seemed a most extraordinary thing that he was not elected to the Chair of the Practice of Physic in the University of Edinburgh on the death of Sir Thomas Grainger Stewart. The reason did not lie in any unsuitability or weakness on the part of Dr. Gibson. Gibson's characteristic of large heartedness was a fit complement to his large brainedness. Just as there was a breadth of view in his science and medicine, so there was a breeziness and refreshing breadth of view in all else he undertook. He was absolutely to be depended upon; sincere in his every relationship, he was sincere as a friend and straightforward as an opponent. He hated meanness and crookedness in any kind of dealing, as all really great minds do hate them. As fair a foe as ever fought when occasion compelled him, Gibson's genius was for making friends.

Dr. MacKenzie, writing in the *Lancet* of January 25th, 1913, concludes his tribute with these words, "His self-sacrificing disposition was almost proverbial, no one ever appealed to him in vain, and many a one could tell of infinite labour and trouble he has taken to help a friend in difficulties." The present writer can give one excellent example of what Dr. MacKenzie alludes to. On one occasion a meeting, the decision of which was of great moment to the writer, had

been called for an early hour on a Monday morning which made it very difficult to reach the place of meeting even from Edinburgh. But Dr. Gibson had been called on the Saturday to a consultation in the west of Scotland. The Sunday found him in a country town with no railway communication whatever with the place of meeting. To keep the appointment, Dr. Gibson motored through the night in winter from one side of Scotland to the other. The writer heard of this incident from some one else's lips. Dear Gibson; wise, loyal, joyous friend! Oh, that we might say anything but "farewell!"

COÖPERATION IN LONDON

THE strained relations between the Medical Department of the Western University and the Institute of Public Health have been adjusted for the present. The trouble arose from the complaint of the students that the Institute staff was not giving the students the necessary laboratory work, a complaint which was embodied by the students in a protest addressed to the medical faculty. It is claimed that the Institute was established by the Ontario government, mainly through the instrumentality of the medical faculty, for the promotion of medical education, as well as for the purposes of public health work, including the training of physicians for medical health officers. The former object does not seem to have met with the sympathy of the medical director of the Institute, and to that fact the medical faculty attributes the present dissatisfaction; while the Institute staff claim that there have been delays in completing the equipment of the Institute and that any inefficiency in the service to the students has been due to those delays.

Pending the occupancy of the Institute, the laboratory work has been conducted at the medical school up to the present. On the strength of the students' petition, the medical faculty appointed two of its former staff to conduct at the

school the practical laboratory work which it was claimed the Institute staff failed to provide. The faculty at the same time referred the complaints to the Board of Governors of the Western University, and this board now has directed that the Institute be put in readiness without further delay and that the medical students be furnished forthwith with ample laboratory instruction. The governors are determined that the Institute shall be made not only a public health utility, but also a valuable adjunct to the Medical School in providing that institution with instruction in laboratory subjects.

A FRESH VIEW

IN the January number of the JOURNAL some well considered comment, based on reports received from a variety of sources, was published upon the conduct of the Academy of Medicine in Toronto in refusing admission to an applicant. This comment has since been considered by a special committee of the Academy. The result of their deliberations is contained in the following report, and they have accorded to the JOURNAL the privilege of publishing it:

I. The editorial is not in accordance with the facts, and is not in the interest of either the Academy of Medicine, Toronto, or of the Canadian Medical Association.

II. The constitution and by-laws were adopted on the organization of the Academy, after due deliberation; accepted and, necessarily, signed by every Fellow before he could be admitted to the privilege of the Academy.

III. The election referred to in the editorial was carried out in strict accordance with the constitution.

IV. The objects for which the Academy was organized are clearly stated on page 7, article 2, as follows:—"The purpose of the Academy shall be the advancement of the art and science of medicine with its collateral branches; the promotion and maintenance of an efficient library and museum;

professional improvement; the cultivation of harmony and good feeling among its Fellows; and the promotion of the corporate influence of the profession in relation to the community."

V. There is not now, nor has there ever been, friction in the Academy between the Fellows who are members of the Medical Faculty and those who are not on the teaching staff.

VI. Dr. Reeve has not resigned his Fellowship in the Academy but continues, as heretofore, his interest in its affairs.

Readers who are sufficiently interested in the subject are invited to read again the editorial in the light which this report furnishes. They are asked to observe that the first part of the editorial, which appears to have given especial offence, is in the most general terms, and refers to all medical societies in general, not to any one in particular. It merely enumerates the principles by which they should be governed and the practices which they should avoid.

GRADUATES in medicine of McGill University are now permitted to take the New York State Board examination. About six months ago, the Board made certain changes in its requirements—both as to college matriculation and the qualifications necessary for the degree. As biology is not included among the subjects required in the entrance examination at McGill, it was decided that graduates in medicine from this university were not eligible for the Board examinations. However, the matter has been reconsidered and a conference was recently held, at which were present representatives of the New York State Board and of McGill University. It was considered that as McGill gives a five year course in medicine, and as a four year course satisfies the requirements of the Board, the first year course in biology at McGill should be accepted by the Board as equivalent to matriculation biology.

THE next annual meeting of the British Medical Association will be held at Brighton in July. This will be the eighty-first annual meeting of the association. The president-elect is Dr. W. Ainslie Hollis, consulting physician to the Sussex County Hospital.

THE Canadian Pacific Railway has inaugurated a system of instruction in first-aid work, and a fully equipped car with instructors left Ottawa, January 17th. A complete course of instruction will be given to the men employed by the company, and they will be required to pass an examination in anatomy and physiology. In order to create an added interest in the work, competitions will be held at the different points. We are informed that two thousand men have already qualified in this branch of ambulance work.

THE Canadian Medical Protective Association applied for incorporation in a bill which went through the private bills committee, February 11th. Dr. Chabot, M.P., explained that the objects of the organization are "to maintain and protect the honour and interests of its members; to encourage honourable practice and assist in the suppression and prosecution of unauthorized practice; to advise and assist members unjustly prosecuted and to foster the fraternal spirit." The incorporators are Drs. R. W. Powell, of Ottawa; J. O. Camirand, Sherbrooke; J. F. Argue and J. D. Courtenay, Ottawa; T. G. Roddick and E. G. Lachapelle, Montreal; Alex. Primrose and E. E. King, of Toronto. The bill came up for consideration in the House on February 24th, and nearly the whole day was spent upon it. A certain amount of opposition developed on account of the relation which the association might have towards medical practice not commonly approved by the profession, and upon the grounds of provincial jurisdiction. With some amendments covering these objections the bill was reported to take its place for third reading.

A PRIZE consisting of a gold medal is offered by the American Laryngological Association for the best essay upon some subject relating to laryngology or rhinology, preference being given to essays offering new suggestions of practical value arising from original work. The competition is open to practitioners, in regular standing, of the United States and Canada, who are not members of the American Laryngological Association. The essays must be typewritten in English, and placed in the hands of the secretary before May 1st. The author's name and address with the title of his paper must be enclosed in a sealed envelope which will be opened after the award has been made. The successful essay will be published in the "Transactions of the Association," but it may also be given to any other journal for publication.

A GENERAL conference of the China Medical Missionary Association was held at Peking last January. The association is a purely advisory body, whose purpose is to unite all medical missionaries working in China and to aid them in their efforts, particularly in regard to medical education. Conferences are held annually at various centres; the general conference, however, only takes place once in three years. The association has undertaken the translation into Chinese and the publication of various medical works, among them, Gray's "Anatomy," Halliburton's "Physiology," Osler's "Medicine," Rose and Carless's "Surgery," and Caird and Cathcart's "Surgical Handbook." Dr. D. J. Evans's book on "Obstetrics" was translated into Chinese several years ago and has now gone into a second edition. The official organ of the association is the *China Medical Journal*, which is issued quarterly.

SOME lack of harmony would appear to exist in certain places between the school authorities and the physician entrusted with the medical inspection of the children attend-

ing school. For instance, in South Vancouver, some friction has occurred. Objection has been made to the inspection of children in the class-room on the ground that, should a child be afflicted with disease, the other pupils would at once know of it. It has been suggested that the difficulty could be obviated if each child were made to pass singly before the medical examiner. The teachers in certain schools have objected to the examination of children in the class-room, and the question has arisen as to whether the medical examiner should report to the board direct or to the school inspector. The board was of the opinion that the report should be made to it, and that any interference on the part of the school inspector in matters concerning the medical examination of pupils would be unjustifiable.

A CONFERENCE was held in Wellington, New Zealand, last November to consider the means of prevention of consumption. Between 1901 and 1910, 7,769 deaths occurred from tuberculosis in the dominion, an annual average of 776.9. In 1911, there were 738 deaths from the same cause. That is, one death in every eleven in New Zealand was due to tuberculosis, and it is estimated that there are at present about 2,800 persons, excluding children, who are totally, or partially, incapacitated for work because they are afflicted with the disease. Although the law requires that notification shall be made of all cases, this rule is not strictly enforced, and the Maoris are exempt altogether. New Zealand is unique among the civilized countries of the world in that there exists no national association for the prevention of tuberculosis. The objects of the recent conference were: to infuse new vigour into the campaign against consumption; to consider what legislative or administrative departments are lacking; to obtain the opinions of those actively employed in the treatment of the disease as to the forms of treatment to be adopted; and to obtain the views of members of the medi-

cal profession engaged in general practice as to what part they are prepared to take in the campaign.

MESSRS. W. B. Saunders & Company, of Philadelphia and London, announce that they will publish shortly a new work on the history of medicine by Dr. Fielding H. Garrison, principal assistant librarian, Surgeon General's Office, and editor of the *Index Medicus*. The work will be comprised in one volume and will present in a concise form a complete history of medicine from the earliest times, touching on Egyptian, Sumerian, Oriental, and Greek medicine; the Byzantine, Mohammedan, Jewish, and Mediæval periods; the Renaissance, the Revival of Learning, and the Reformation; and on through the seventeenth, eighteenth, nineteenth, and twentieth centuries, to the present day. Appendices will also be given treating of medical chronology, histories of important diseases, drugs, therapeutic procedures, surgical operations, and so on. The book will be illustrated and will contain many interesting biographies and bibliographical notes. A brief survey of the social and cultural phases of each period will be given, and the book promises to be an important addition to the medical literature.

THE International Medical Congress will meet this year in London, for the first time in twenty-one years. Among the many features of interest will be the museum, which is being organized by a committee under the leadership of Professor A. Keith, of the Royal College of Surgeons. The museum will consist of exhibits illustrating the subjects which will be discussed in the various sections, together with such other material as the committee may deem of sufficient interest; it will be housed in the Imperial College of Science, South Kensington, and, if thought advisable, it will be kept open for a few days after the congress has ended. The honorary

secretary of the museum committee is H. W. Armit, Ravenhurst, Talbot Road, Wembley, and medical practitioners and scientists who are willing to place at the disposal of the committee material illustrative of recent advances in medical science, are requested to communicate with him. Expenses of transit will be defrayed and the exhibits insured against damage or loss, and returned in good condition. Exhibitors will be invited to hold demonstrations in the museum on their own specimens.

A second feature of unusual interest will be an exhibition of rare and curious objects relating to medicine, chemistry, pharmacy, and the allied sciences, which is being organized by Mr. Henry S. Wellcome. This will be one of the most interesting collections of historical medical objects ever displayed, and will include medical deities of barbaric and primitive races, amulets, talismans, and charms connected with the art of healing, and specimens of instruments used in every part of the world, while an attempt will be made to trace the evolution of the surgical instruments in use at the present day. Models of ancient pharmacies and laboratories, relics of the practice of alchemy, and specimens of ancient and unusual *materia medica* will also be shown.

ALTHOUGH we cannot assert that in every walk of life the remuneration is proportionate to the work accomplished, it is usually recognized that some semblance of balance must be maintained. In this connexion, it is of interest to note the case of the medical officer of health—at the moment in Ontario particularly. He must be a specialist in public health and sanitation and a man of judgement and administrative ability; among his numerous duties are the supervision of the water supply and of the food supply, the enforcement of sanitary and hygienic conditions, the control and, if possible, prevention of epidemics of infectious disease, the collection of vital statistics, the study of the causes of infant

mortality and the means of prevention, and so on. And in return for these various activities—which it is expected he shall perform faithfully and well—what is he offered? Take for example the case of Whitby. At a meeting of the city council, which took place January 20th, Dr. C. F. McGillivray was appointed medical officer of health at a salary of twenty-five dollars a year. A second applicant for the position was Dr. F. Warren, but as he had suggested verbally to members of the council that an annual salary of one hundred dollars might be acceptable, “the lower offer of Dr. McGillivray was accepted.” We quote from the *Whitby Gazette*. Another case in point is that of Ingersoll. For some years the position of medical officer of health has been held by Dr. J. A. Neff, and, so far as we can gather, his duties have been performed to the satisfaction of all. Under the new regulations, a medical officer of health cannot be dismissed by the civic authorities unless some good “cause” is given, and the remuneration is to be one hundred dollars for the first thousand of population and fifty dollars for each additional thousand. Accordingly, Dr. Neff requested that his salary should be increased to at least two hundred dollars, claiming that in reality he was entitled to three hundred dollars. After some discussion, the council appointed Dr. Counter medical officer of health at a salary of fifty dollars a year. In truth, the amount is not excessive.

THE DIAGNOSIS OF SMALLPOX

TO THE EDITOR OF THE CANADIAN MEDICAL ASSOCIATION JOURNAL:

SIR,—The science of medicine and surgery has made such rapid strides within the last quarter of a century, that we are to-day, if we know our science, in but little doubt in reference to diagnosis, for, like the mathematician, we can prove our case.

In a doubtful case with difficulty in differentiation between typhoid fever and appendicitis, we flee to the Widal test, diazo reaction, or blood count. In former days, before science made her last leap on syphilis, we frequently, when in doubt, gave potassium iodide and obtained such marked results that we felt we had proved our case. The microscope, with the fine work of the pathologist and chemist, has brought us to not only practise our profession for a livelihood but to enjoy the science.

It is with this idea of accuracy in reference to the so-called epidemics throughout our country that I am led to ask publication of the following remarks in reference thereto. It has been the experience in New Brunswick that, even though the physician in charge of a case reported it as chicken-pox, such cases of smallpox have been quarantined by the health officer without further notice, and even though men with much experience in epidemics of smallpox, where the death rate has been large, have one after another given their opinion that the disease was chicken-pox after careful examination of the cases in quarantine as smallpox, nevertheless the health officer in New Brunswick—and I presume it is the same in other provinces—continues to quarantine these cases as smallpox. Theologians differ in their opinion, as also do lawyers and physicians, but when we have a way of proving our case as will be shown further on was done in the central New Brunswick epidemic, it seems to me a question for a scientific commission to take out of the hands of political appointees, who sometimes receive increased remuneration according to their activities in epidemic times.

In December's issue of THE CANADIAN MEDICAL ASSOCIATION JOURNAL, I noted with interest an article, written by Dr. Whitelaw, of Edmonton, on a series of smallpox cases with some remarks on diagnosis and vaccination, and not seeing any remarks on the death rate I have concluded that all of Dr. Whitelaw's cases recovered

irrespective of vaccination. A little farther on in his article he treats of the infectiousness in this way: "If smallpox were as easily contracted as is popularly supposed from air infection and from contact with articles in the room through which the patient may have passed, or in which he may have stood, sat, or slept, and if all the elaborate directions as to disinfection and quarantining enjoined by the board of health regulations, which, owing to conditions existing in many cases, can be but imperfectly carried out, were justified by actual experience, there would be after a lapse of time only two classes of cases in Edmonton,—first those protected by vaccination and, secondly, those who had become protected by contracting the disease itself without falling into the hands of the undertaker."

And so I am led to wonder how smallpox has so changed within the last fifteen or twenty years without any scientific research giving us reasons. When we look at statistics of previous epidemics, there has, till very recently, been a mortality of ten to fifty per cent., and often seventy-five per cent. has been recorded.

At St. John, New Brunswick, a few years ago, the death rate was twenty-three per cent., although considered a very mild epidemic, in a city which can boast of its well-qualified physicians and surgeons. Perhaps Dr. Whitelaw has not heard of the epidemic of what was taken for smallpox, carried from Canada to Barbadoes, where the health authorities, at an expense of more than seventy thousand dollars in house to house visitation, vaccination and quarantining, did not succeed in checking the disease at all and there were thousands of cases without a death.

Is it not a scientific fact that vaccination will check smallpox? If not, why vaccinate, if we get no mortality out of hundreds of cases, for there is some risk and much discomfort in vaccination itself? Is it not a scientific fact that vaccine will not take on an individual who has had smallpox? In Osler's "Modern Medicine," on page 303, we find the following: "Inoculation of calves with smallpox material, with proper care, produces a disease indistinguishable from primary or 'spontaneous' vaccinia and giving the same protection against both smallpox and vaccination that natural cox-pox gives."

A few years ago, we had in central New Brunswick an epidemic of so-called smallpox, and thousand of dollars were spent in such quarantining as one would judge from Dr. Whitelaw's article was carried on in Alberta; there were no deaths, and the late Dr. Bayard, the father of the board of health of New Brunswick and its chairman

for forty years, and at the time of this epidemic still chairman, a man with a deep interest in the science of medicine, having had much experience in smallpox in the Old World and in that fearful epidemic which St. John faced about forty or forty-five years ago, wondering why there was no death rate in the hundreds of cases reported from central New Brunswick, wrote a request to vaccinate three cases which had been in quarantine for smallpox. This I did, selecting cases which physicians had seen covered with papules and scales from head to foot and showing at time of vaccination stains, or so-called scars, of vesicles: all three took. Another physician, while doing compulsory vaccination, vaccinated a man who had had this disease and been quarantined in a lumber camp a few months before in the province of Quebec, this also took. Dr. Bayard came from St. John into central New Brunswick to examine the result, and in writing reported the cases as successful vaccinations and therefore not smallpox.

In the many cases in the interior epidemic of which reference is made here, there was not one case, of the great number which I saw, in which the vesicles did not appear in crops, extending over many days, and in some cases they were covered from head to foot with vesicles and scabs at the same time, and yet not one vesicle was found to coalesce with another, and even in cases which were hideous to look at, in adults who had never been vaccinated, there was no secondary fever.

In an epidemic of smallpox in which the mortality was twenty-three per cent., a case of chicken-pox got into the smallpox hospital, where it contracted smallpox and died; yet Dr. Whitelaw tells us it is not a serious thing to mistake grippe or chicken-pox for smallpox.

Why has scarletina not ceased to be as contagious as it always has been? Why do we dread syphilis as much as ever? What has so changed the smallpox of Canada to such a mild non-contagious disease within the few years which have passed since the fearful Montreal epidemic?

HARRY H. McNALLY

Fredericton, New Brunswick,
January 23rd, 1913

Book Reviews

A TEXT-BOOK OF OBSTETRICS, INCLUDING RELATED GYNÆCOLOGIC OPERATIONS. By BARTON COOKE HIRST, M.D., Professor of Obstetrics in the University of Pennsylvania. Seventh revised edition. Octavo of ten hundred and thirteen pages, with eight hundred and ninety-five illustrations, fifty-three of them in colour. Philadelphia and London: W. B. Saunders Company, 1912. Cloth, \$5.00 net; half morocco, \$6.50 net. Canadian Agents: The J. F. Hartz Company, Toronto.

To "Hirst's Obstetrics" we may well apply the formula, that a book which has reached its seventh edition has amply justified its existence. The first edition appeared in 1898, and seven editions in fifteen years is a remarkable record. Professor Hirst brought to his original work an experience of twelve years as consulting and attendant gynæcologist and obstetrician in eight of the principal hospitals of Philadelphia. In addition he had engaged, during his whole professional career, in teaching medical students in clinics, hospitals, laboratories, and in the lecture-room. Since that time he has enlarged his experience enormously and the present book is the well-considered result. Certain alterations in the arrangement have been made. For example, the physiology of the process of generation is made to precede the pathology of it. Another innovation in this edition is the extension of the article on diseases of the breast; for, as the author observes, with a clinic of three or four thousand women a year the head of an obstetrical department has opportunities for acquiring experience in diagnosis, and skill in treatment, that no general surgeon can rival. But the main distinction of his book is that it includes the diseases of women and their treatment as a necessary part of obstetrics, on the ground that the consequences of child-bearing constitute the vast majority of diseases of women. Excepting in France, many of the best medical schools have dispensed with a separate department for teaching diseases of women to avoid unnecessary duplication, and the imperfection of teaching when the two subjects are separated. It is worthy of remark that during the last year McGill University has placed the two departments under one head. In these years

the book has grown to a volume of slightly over one thousand pages, and in it we note that mechanical excellence for which Messrs. Saunders' publications are distinguished.

A TEXT-BOOK OF GENERAL BACTERIOLOGY. By EDWIN O. JORDAN, PH.D., Professor of Bacteriology in the University of Chicago and in Rush Medical College. Third edition, thoroughly revised, octavo of six hundred and twenty-three pages, fully illustrated. Philadelphia and London: W. B. Saunders Company, 1912. Cloth, \$3.00 net. The J. F. Hartz Company, Toronto.

This book is the outcome of lectures given to the students in the University of Chicago, and has now reached its third edition. The fresh features which we note are chapters on cholera, and typhoid fever, and a more extended reference to poliomyelitis, measles, typhus fever, and several plant diseases. The description of technical procedures in serum diagnosis has also been amplified. Without attempting to constitute itself a guide for laboratory work in bacteriology or to replace the assistance of a technical instructor, the book makes ample reference to laboratory methods. The present revision has made the book quite new, and all of the most modern procedures are either referred to or described in detail. The reference to the literature is ample and Professor Jordan demonstrates that he is closely in touch with the best that is being done in his special subject. Statistics are used with skill to prove the value of the various methods, especially of inoculation to prevent disease.

A MANUAL OF CHEMISTRY. By W. SIMON, PH.D., M.D., Professor of Chemistry in the College of Physicians and Surgeons, Baltimore; Emeritus Professor in the Maryland College of Pharmacy; and DANIEL BASE, PH.D., Professor of Chemistry in the University of Maryland. New (tenth) edition, enlarged and thoroughly revised. Octavo, seven hundred and seventy-four pages, with eighty-two engravings and nine coloured plates, illustrating sixty-four of the most important chemical tests. Cloth, \$3.00 net. Lea & Febiger, Philadelphia and New York, 1912.

Students of medicine, pharmacy, and dentistry will find in this book all the chemistry which can be learned from books, and much more besides. For many years this text-book has been the

companion of students, and it has always accomplished its object as set forth in the preface: "to furnish in concise form a clear presentation of the science, an intelligent discussion of those substances which are of interest to him, and a trustworthy guide to his work in the laboratory." If proof of this statement were needed, it may be mentioned that this is the tenth edition of the book. The amount of new material is quite large, and so important is the revision was made none too soon. At the moment the book is the highest standard.

GUIDE TO MIDWIFERY. By DAVID BERRY HART, M.D., F.R.C.P. (Edin.). With four illustrations in colour and two hundred and sixty-eight diagrams; price, \$6.00 net. New York: Rebman Company, 1912.

This book fulfils every expectation. It is what it purports to be, not a text-book or a treatise but a guide. It embodies the best practice in teaching of the Edinburgh school, that is, continual reference to the fact; and the author goes so far as to say that it would be better if a book on midwifery were not illustrated at all. The student would then be obliged to have recourse to specimens and sections, and so acquire distinct images rather than conceive mere phantoms and idola. The work is a new one and is dedicated to James Young Simpson, James Matthews Duncan, and Robert Lawson Tait, that trio of pioneers in this field of medicine. It is written in two parts. In the first a succinct account of midwifery is given, and to each chapter has been added instructions in practical work. In the second part notes have been added with a summary of new operations and of recent theories. The chapter on "Evolution in Obstetrics" is of especial value. For students who wish to distinguish between the verbal and the actual, this book will prove a trustworthy and entertaining guide. It is quite new in design and is really a work of art.

PELLAGRA. HISTORY, DISTRIBUTION, DIAGNOSIS, PROGNOSIS, TREATMENT, ETIOLOGY. By STEWART R. ROBERTS, S.M., M.D. Illustrated with eighty-nine special engravings and coloured frontispiece; price, \$2.50. St. Louis: C. V. Mosby Company, 1912.

At the second triennial meeting of the association for the study of pellagra held in Columbia, October 3rd and 4th, several resolutions were passed, which are summarized by C. H. Lavinder,

in *Public Health Reports*, November 1st, 1912. The belief of the meeting was that the ultimate cause of pellagra is unknown; that no satisfactory evidence has ever been submitted to show that the disease is transmissible from one person to another; and that there is at present no known specific remedy. Within recent years an extraordinary amount of research has been done upon the disease without any conclusive result; but it has been discovered that it is much more widespread than was commonly believed. For a long time it was known to exist in Italy, Spain, Roumania, but it is only recently that cases have been discovered in the Shetland Islands, Fifeshire, and Aberdeen. The theory must be abandoned that the disease is due to the employment of maize as food. Till the year 1905 the connexion between maize and pellagra was generally accepted, but in that year Dr. Louis W. Sambon asserted that it was a disease like malaria, or the sleeping sickness, caused by a parasite which was conveyed from one person to another by some blood sucking insect. From his investigations in Italy he discovered that pellagra was very local in its distribution and was confined to the neighbourhood of swift-flowing streams where he found a minute fly known as the simulum. He believes that this insect may be the transmitting medium, but the proof is not at all absolute, as the actual parasite has not been identified. The dictum of Professor Roberts is that the cause is unknown. The disease itself has been recognized in the medical literature of Italy since 1771, when Frapolli referred to it as "a disease among the people called pellagra." The name is of peasant origin and is composed of two words signifying "rough skin." The disease may be endemic in country communities and may suddenly break out in epidemic form in new areas. It is a disease of the country and does not attack dwellers in crowded cities. Women are more commonly affected than men. It may occur at any age. Dr. Roberts gives a most elaborate historical account of the disease in all countries, and estimates that in the United States alone there are at the present time ten thousand cases. The amount of material in the book is mazing, and if it does not very far advance our knowledge of the cause of the disease at least it gathers together all the information that is available. It is one of the most important monographs upon the subject, and illustrates the close attention which has been given to the disease in the United States. In the Southern States the disease is of great economic importance, and we are informed by Dr. George M. Niles, of Atlanta, that he has personally treated four hundred cases.

SURGERY OF THE BRAIN AND SPINAL CORD. By PROFESSOR FEDOR KRAUSE, M.D., Chief Physician at the Augusta Hospital in Berlin. Vol. III, translated by MAX THOREK, M.D., University of Chicago, Surgeon-in-Chief American Hospital, Chicago. Price, \$7.00 net. New York: Rebman Company, 1912.

All surgeons are familiar with Professor Krause's publication, "Surgery of the Brain and Spinal Cord." The first volume was translated by Dr. Haubold; the second was translated by Dr. Thorek, who also translated the third volume, which has just been issued by the Rebman Company. The third volume is uniform with the previous ones, and has been prepared according to the same plan. It is made up of a series of plates, twenty-one in number, which contain various figures. Accompanying the plates is a "series of observations," fifty-one in number. The subjects considered are, neoplasms at the base of the skull, and of the Gasserian ganglion; intracranial suppurations including otitic abscesses of the brain; metastatic processes including carcinoma and abscesses; injuries of the brain; opening of the vertebral canal by laminectomy; tumours of the spinal membranes; meningitis; indurations of the spinal cord; intramedullary neoplasms; tuberculosis of the vertebral column; spinal paralysis in tuberculosis of the bodies of the vertebrae; and injuries of the spinal cord. This volume extends from page eight hundred and twenty-one to twelve hundred and one of the series. The whole book is a record of personal experience. For example, the author has to his credit one hundred and nine operations for neoplasms of the brain substance, and seventy extirpations of the Gasserian ganglion. The mortality is given in great detail, and makes a worse showing than one would expect from reading the results of other surgeons. But Professor Krause points out that only those results are of value which are based upon the whole experience of one operator, since surgeons who have had few and, perhaps, unsatisfactory results, do not feel inclined to bring them to the general notice. It is only by publishing the failures as well as the successes that a true estimate can be obtained. The method of the book is familiar to all surgeons. It gives with scientific precision the successive steps by which each operation is performed. It describes the symptoms in each individual case, and the results, whether favourable or unfavourable. Professor Krause opens up freely his store-house of experience to all his fellow-surgeons. It is at their disposal in this book.

THE PROSPECTIVE MOTHER. By J. MORRIS SLEMONS, Associate Professor of Obstetrics, Johns Hopkins Hospital. Appleton & Company, New York, \$1.50 net.

To those familiar with obstetrical literature the author needs no introduction, for he will be remembered as a pioneer in the investigation of the problems of the metabolism of pregnancy. In addition, Dr. Slemmons has had the advantage of a long association with Professor Whitridge Williams and an extensive consultation practice. How thoroughly he has made the most of his opportunities is best evidenced by the directness and simplicity of his book. It will be welcomed, not only by the intelligent women about to become mothers—for whom it is primarily intended—but also by medical students and practitioners whose obstetrical work is so limited that they are not kept in touch with all the possible complications of pregnancy. The broad truths regarding impregnation and the development of the ovum are stated with the utmost simplicity and the bearing of these and various abnormal conditions that may arise are clearly explained. For each complication the cause is given and a simple remedy suggested, while such vexed questions as the wearing of corsets, the amount of exercise, the possibility of prenatal influences on the child, and similar questions, receive full treatment. Not the least important chapter in the book is that dealing with abortion in its various phases and giving particular attention to the aspect of criminal abortion. The book to be fully appreciated must be read, and it is heartily commended to the medical profession for, since the introduction of chloroform in labour, there are few greater services rendered the pregnant woman than that done by Dr. Slemmons in bringing out this book.

TREATISE ON TUMORS. By ARTHUR E. HERTZLER, M.D., PH.D., Associate Professor of Surgery in the University of Kansas. Illustrated with five hundred and thirty-eight engravings and eight plates. Lea & Febiger, Philadelphia and New York, 1912.

The appearance of this book gives rise to the comment that an extremely active school of medicine is arising in the middle portion of the United States. Excellent publications come continually from Mosby in St. Louis, and the University of Kansas affords ample evidence of a useful activity. This "Treatise on Tumors" is quite up to the standard in appearance and size. It is well printed, as Lea & Febiger's books are, and extends to considerably over

seven hundred pages. Dr. Hertzler finds fault with the previous books which deal with the subject, on the ground that they are either "broadly clinical or entirely scientific," and he adds that "a proper comprehension of any tumour demands the application of both the scientific viewpoint and clinical observation." This sentence will serve to illustrate the literary form of the work. The author's aim has been to supply this end, and he has "thought best to place the chief emphasis upon the practical aspect of the subject." Accordingly, the clinical illustrations constitute the chief value of the work. These have been done by Messrs. Jones and Biggar, and are certainly admirable, especially those which are drawn from the living model. Seeing that Dr. Hertzler has deliberately made choice of the clinical aspect of tumours, it is scarcely fair to criticize his work on the scientific side, yet one is bound to remark that the chapter upon endotheliomata is quite out of accord with present views upon the subject. The illustrations are quite remarkable and are likely to find a permanent place in the literature of the subject.

THE NUTRITION OF THE INFANT. By RALPH VINCENT, M.D.
Fourth edition; illustrated; price, 10s. 6d. net. London:
Baillière, Tindall & Cox, 1913.

Dr. Vincent's book has already gone to the fourth edition. In this one the chapters dealing with the bacteriology of milk and with the various forms of intestinal disorders have been rewritten. Books upon infant feeding take it for granted more and more that the source of supply is not the mother but the cow. In New York, according to Dr. Holt, three children out of every four born into the homes of the well-to-do classes must be fed artificially; maternal nursing is steadily diminishing; and "an educated mother who successfully nurses her own infant for six months is a phenomenon." Dr. Vincent bears similar testimony in respect of England, whereby, he says, the increasing inability of women to nurse their infants is widespread. Accordingly, a modern book upon the nutrition of the infant is, in large part, a treatise on dairying and concerns itself more with the cow than with the woman, or the child either. Dr. Vincent is director of the research laboratory in the London Infants' Hospital which has as an integral part of its equipment a farm at Sevenoaks. The description of this farm is most interesting and the methods employed for securing clean milk might well be copied by municipalities as well as by hospitals. By no process of manipulation can dirty milk be converted into clean milk. This book

suggests that the problem of infant feeding is much the same in all countries, and the methods do not differ greatly.

PHYSIOLOGY OF THE SEMICIRCULAR CANALS AND THEIR RELATION TO SEASICKNESS. By JOSEPH BYRNE, A.M., M.D., LL.B.
New York: J. T. Dougherty

The author's work is divided into general anatomical and physiological considerations, the physiology of the semicircular canals and seasickness. The anatomical section is very thoroughly dealt with, in fact, so minutely, that its value will only be appreciated by those directly interested in otology. It is interesting to note that in the section devoted to the physiology of the semicircular canals, the phenomena of nystagmus and the displacements of the head that occur in rotation, aural irrigations, and galvanism, applied to the mastoid areas, were observed by the author independently, and the mechanism involved in their production was studied and worked out before he had any information of the work done by Barany and Neumann. Upon the subject of seasickness the author devotes a great deal of space, which contains his own personal experiences in endeavouring to throw light upon this interesting subject, not only as to its causation, but its treatment. The work is so thoroughly interesting that a close perusal of it is necessary in order to appreciate its value as a contribution to this complex subject, and it is to be commended especially to those interested in the subject of otology.

DISEASES OF CHILDREN. A PRACTICAL TREATISE ON DIAGNOSIS AND TREATMENT, FOR THE USE OF STUDENTS AND PRACTITIONERS OF MEDICINE. By BENJAMIN KNOX RACHFORD.
New York and London: D. Appleton & Company, 1912.

Within the past few years we have noticed a large accession to medical literature coming from the middle west of the United States, and this book by Professor Rachford, of Cincinnati, is another indication of this general tendency. In all respects the works compare very favourably with the product of the eastern schools. The general remark may be made that in all these books the sections dealing with treatment are unusually generous. The present book is a volume of nearly eight hundred pages, and being published by Messrs. Appleton & Company, is up to the best standard of medical works. It contains six plates and one hundred and seven illustrations in the text, and all of them are singularly clear,

although some of them not unfamiliar. By all the tests which we have been able to apply, this book will hold its own as an adequate exponent of the diseases of children.

THE PRACTITIONER'S ENCYCLOPÆDIA OF MEDICINE AND SURGERY, IN ALL THEIR BRANCHES. Edited by J. KEOGH MURPHY, M.C., F.R.C.S., Surgeon, Miller General Hospital for South-East London, Senior Assistant Surgeon to Paddington Green Children's Hospital. Fourteen hundred and forty-three pages, with illustrations; price, \$8.00. London: Oxford University Press; Toronto: D. T. McAinsh & Co.

One approaches this book with great respect. It is one of the Oxford medical publications. Each article is written and signed by a person of authority; it covers a wide range of subjects; it contains over fourteen hundred pages with about ten hundred words to the page; it is having remarkable success amongst members of the medical profession; it is dedicated to Sir William Osler. When one has said this one has given merely the salient facts—it would be obviously impossible to consider the work in detail. The object of the editor has been to produce a practitioner's encyclopædia in which nothing of real importance to him in medicine, surgery, obstetrics, and allied subjects should be omitted, a book of a size and scope that he can, within a single volume, find reliable information simply and clearly set forth upon all subjects with which he may be called to deal in his daily work. It is stating nothing more than the exact truth to say that the editor has accomplished the task which he set before himself. The book is sure of a warm welcome wherever it comes to be known, and the present notice is intended as an aid towards that end.

SURGERY AND DISEASES OF THE MOUTH AND JAWS. A PRACTICAL TREATISE ON THE SURGERY AND DISEASES OF THE MOUTH AND ALLIED STRUCTURES. By VILRAY PAPIN BLAIR, A.M., M.D. With three hundred and eighty-four illustrations. Price, \$5.00. St. Louis: The C. V. Mosby Company, 1912.

The author of this book has brought to his task a complete equipment of experience in surgery and knowledge of the literature, and he has produced an extremely valuable work; valuable alike to the surgeon and to the dentist. For the dental student the chapters on surgical pathology and surgical principles will be found especially valuable. The knowledge of the subject is well co-

ordinated and it is illustrated by ample reference to actual conditions and operations. The illustrations in the text are three hundred and eighty-four in number, and cover a much wider procedure than is commonly applied to diseases of the mouth and jaws. Indeed the field of brain surgery is largely encroached upon, but no important condition in this area is overlooked. This book is a further illustration of the important place which the Mosby Company is achieving in medical publications.

ARTERIOSCLEROSIS. ETIOLOGY, PATHOLOGY, DIAGNOSIS, PROGNOSIS, PROPHYLAXIS, AND TREATMENT, WITH A SPECIAL CHAPTER ON BLOOD PRESSURE. By LOUIS M. WARFIELD, A.B., M.D. With an introduction by W. S. Thayer, M.D. Revised edition, illustrated with twenty-eight engravings; price, \$2.50. St. Louis: C. V. Mosby Company, 1912.

The important chapter in this book is the one on arteriosclerosis in its relation to life insurance. The insurance examiner is usually the first to detect the condition, and his discovery is not usually received with favour either by the applicant or the agent. Dr. Warfield mentions several cases which are quite typical, namely, those of men in the prime of life, apparently in good health, who show an increased blood pressure. Whilst it is quite true that arteriosclerosis and hypertension are not the same thing, for insurance purposes they may be regarded as identical. The most careful companies now demand a reading of the blood pressure in all cases, and their experience shows that applicants who supply a reading above one hundred and sixty should be declined. Such a reading is almost invariably accompanied by a definite accentuation of the second sound of the heart. The advice of the author is sound, that a person over forty years of age should consult a physician as regularly as he consults his dentist. Arteriosclerosis is on the increase, especially in America, and the author does well to insist upon its prevalence. This is the second edition of the book and especial attention is given to the pathology and physiology of the condition; and the importance of increased blood pressure as a sign is given due prominence. As Dr. Thayer points out in the introduction, arteriosclerosis has come to mean many things, as "billiousness," "malaria," and "neuritis" did in the old days. It is well, therefore, that the word and the condition which it indicates should be subject to fesh scrutiny. This monograph brings within small compass all the important facts connected with this widespread condition. It comes to all, sooner or later, and it is well

that the attention of the profession should be directed continually to its importance. Treatment receives adequate mention, and the importance of exercise is duly insisted upon. It is the author's dictum that "among all the forms of exercise golf probably is the best."

AN INTRODUCTION TO THE STUDY OF INFECTION AND IMMUNITY, INCLUDING SERUM THERAPY, VACCINE THERAPY, CHEMOTHERAPY AND SERUM DIAGNOSIS. By CHARLES E. SIMON, M.D., Professor of Clinical Pathology and Experimental Medicine, College of Physicians and Surgeons, Baltimore. Octavo, three hundred and one pages; illustrated. Cloth, \$3.25, net. Lea & Febiger, Philadelphia and New York, 1912.

This book is a most timely one and already is being eagerly inquired for. It is intended as an introduction to the study of infection and immunity, and of the application of the principles underlying them to diagnosis and treatment. The science of immunology is a new one, and no matter how great the difficulty, the general practitioner must familiarize himself with it; to that end this book will be a great aid. It represents the best product of the Baltimore school, and the intricate subjects with which it deals are presented with the authority which rests in that quarter. The book may be taken as the last word which has been uttered up to the present time upon this new division of medicine.

A SYSTEM OF TREATMENT BY MANY WRITERS. Edited by ARTHUR LATHAM, M.A., M.D. (OXON.), F.R.C.P., (LOND.); and T. CRISP ENGLISH, M.B., B.S. (LOND.), F.R.C.P. (ENG.). Volumes I and II, General Medicine and Surgery; Volume III, Special subjects. Price for the set of four volumes, \$24.00. Toronto: The Macmillan Company, of Canada, Limited, 1912.

In the preface one finds that "the aim of these volumes is to provide the general practitioner with a series of practical articles, in as concise a form as possible, describing the modern methods of dealing with all diseases and written by those who have special experience in the subject with which they deal." While consisting of four volumes, each contains an index to the whole work, thus affording a decided advantage over many other works issued in separate volumes. Volumes I and II comprise general medicine

and surgery; Volume III deals with special subjects; while Volume IV embraces gynaecology and obstetrics. The arrangement of topics is good, yet when one finds that the treatment of injuries—including those of bones, joints, head, etc., is introduced immediately after constitutional diseases, and is followed by a section on respiratory diseases, one feels like asking if the classification could not be improved upon. We think, too, that the discussion of the general principles of serum therapy and vaccine-therapy is best in one of the volumes on general medicine and surgery, instead of in that devoted to special subjects. To describe the intramuscular method of giving "606" without condemning it, is disappointing. Equally so is a discussion of the treatment of tetanus by antitoxic serum without any reference to the injection of this agent into the tissues about the original wound or into the nerve, or cord. To attempt a detailed review of the work is impossible in such a book notice as this. One may say, however, that the articles are concise, interesting, practical, the text well illustrated, the type clear, and the whole work a splendid "System of Treatment" for the general practitioner.

DISEASES OF THE EAR. By WILLIAM MILLIGAN, M.D., Aurist and Laryngologist to the Royal Infirmary, Manchester, and WYATT WINGRAVE, M.D., Pathologist to the Central Throat and Ear Hospital, London. Illustrated with 293 engravings and 6 coloured plates. Macmillan Company of Canada, Limited, Toronto, 1911.

The authors' justification of this work on diseases of the ear is that greater attention is now being given to the subject by the senior student of medicine and the general practitioner. In the opinion of the reviewer, a greater one than this is noticeable, namely, the very lucid manner in which all the various diseases of the ear are treated, so that the work becomes valuable to those for whom it is written. In detail, it is clear, concise, and practical. Its value is, moreover, enhanced by the special attention which has been directed by emphasizing the application of pathological data to accurate diagnosis and treatment. The chapter upon the relation of diseases of the nose and naso-pharynx to those of the ear is especially commendable. The work is the combined result of experienced teachers, and therefore is admirably adapted to the needs of the general practitioner and the medical student.

INTERNATIONAL CLINICS, Vol. IV, Twenty-second Series, 1912.

Edited by HENRY W. CATTELL, A.M., M.D., with the collaboration of JOHN A. WITHERSPOON, M.D., SIR WILLIAM OSLER, M.D.; A. MCPHEDRAN, M.D.; F. BILLINGS, M.D.; C. H. MAYO, M.D.; T. H. ROTCH, M.D.; J. G. CLARK, M.D.; J. J. WALSH, M.D.; J. W. BALLANTYNE, M.D.; J. HAROLD, M.D., and R. KRETZ, M.D. Philadelphia and London: J. B. Lippincott Company. Charles Roberts, Montreal.

In the present volume of this well-known series there are twenty-seven articles, six coloured plates, and fifty-five plates, charts, diagrams, and figures. Out of so large a number of articles it is obviously difficult to select those which would give a fair indication of the value of the book, but we would call especial attention to one, namely, that by Dr. Paul E. Bowers, in which he discusses the relation of prison life to the development of insanity among prisoners. Dr. Bowers is physician in charge of the Indiana hospital for insane criminals, and he has made a tabulation of twenty-six hundred and eighty-one consecutive admissions to that institution. The effect of his paper is to dissipate the idea that prison life in itself produces insanity. Indeed, he is inclined to the belief that prisoners are more immune from insanity than they would be if left at large. There is an admirable biography of Benjamin Rush, who graduated from Princeton College in 1760, written by Dr. Thomas W. Harvey. These volumes must be especially welcome to every practitioner.

SURGICAL OPERATIONS WITH LOCAL ANÆSTHESIA. By A. E. HERTZLER, M.D. Price, \$2.00. New York: Surgery Publishing Company, 1912.

This book is of real value, not only to hospital surgeons but to practitioners who are far removed from the facilities which an institution provides. The average graduate is extraordinarily ignorant of the advantages of local anæsthesia and the means by which it can be secured. As a result, he resorts to general anæsthesia, or neglects cases which require surgical treatment. Local anæsthesia has a technique of its own, which must be learned, and this book will be a help towards that end.

Books Received

THE following books have been received, and the courtesy of the publishers in sending them is duly acknowledged. Reviews will be made from time to time of books selected from those which have been received.

NEW ASPECTS OF DIABETES, PATHOLOGY AND TREATMENT. By PROFESSOR DR. CARL VON NOORDEN, Vienna. Lectures delivered at the New York Post-Graduate Medical School. Price, \$1.50. New York: E. B. Treat and Company, 1912.

FLATULENCE AND SHOCK. By F. G. CROOKSHANK, M.D. (Lond.), M.R.C.P. Price, 2s. net. London: H. K. Lewis, 1912.

A CLINICAL MANUAL OF THE MALFORMATIONS AND CONGENITAL DISEASES OF THE FŒTUS. By PROFESSOR DR. R. BIRNBAUM, Göttingen. Translated and annotated by G. BLACKER, M.D., B.S., F.R.C.P., F.R.C.S. With 58 illustrations in the text and 8 plates. Toronto: The Macmillan Company of Canada, 1912.

VACCINE THERAPY, ITS THEORY AND PRACTICE. By R. W. ALLEN, M.D., B.S. (Lond.). Fourth edition, price 9s. net. London: H. K. Lewis, 1912.

SECOND ANNUAL REPORT OF THE STATE CHARITIES COMMISSION TO THE HONOURABLE CHARLES S. DENEEN, Governor of Illinois, December 31st, 1911. Illinois State Journal Company, Springfield, Illinois, 1912.

PROCEEDINGS OF THE ROYAL SOCIETY OF MEDICINE, Vol. VI, No. 1, November, 1912. Price, 7s. 6d. net. London: Longmans, Green and Company, 1912.

WELLCOME'S EXCERPTA THERAPEUTICA. Canadian edition. London: Burroughs, Wellcome Company, 1912.

MERCK'S MANUAL. Fourth edition. New York: Merck & Co.

SURGICAL OPERATIONS WITH LOCAL ANESTHESIA. By ARTHUR E. HERTLZER, M.D. Price, \$2.00. New York: Surgery Publishing Company, 1912.

INTERNATIONAL CLINICS. Edited by H. W. CATTELL and others. Vol. IV. Twenty-second Series, 1912. Philadelphia and London: J. B. Lippincott Company.

THE SURGICAL CLINICS OF JOHN B. MURPHY, M.D., at MERCY HOSPITAL, CHICAGO. Vol. I, No. VI, December, 1912. Published bi-monthly. Price per year: paper, \$8.00; cloth, \$12.00. Philadelphia and London: W. B. Saunders Company. Canadian agents: The J. F. Hartz Company, Toronto.

THE PRESENT POSITION OF LEPROSY RESEARCH. By H. BAYON. *South African Medical Record*, November 9th, 1912. Cape Town: Townshend, Taylor and Snashall, 1912.

A GUIDE TO THE DESCRIPTION OF MICROSCOPICAL SECTIONS OF PATHOLOGICAL TISSUES. PART II A. OF "A CODE SYSTEM FOR THE HOSPITAL PATHOLOGICAL LABORATORY." By A. C. GRUNER, M.D. Montreal: Miss Poole's Bookroom, 1912.

THE PRESCRIBER, Volume VI. Edited by THOMAS STEPHENSON, Ph.C., F.R.S.E., F.C.S. Edinburgh: The Prescriber Offices, 1912.

MEDICAL MEN AND THE LAW. A MODERN TREATISE ON THE LEGAL RIGHTS, DUTIES, AND LIABILITIES OF PHYSICIANS AND SURGEONS. By HUGH EMMETT CULBERTSON. Price, cloth, \$3.00 net. Philadelphia and New York: Lea and Febiger, 1913.

SKIN GRAFTING. FOR SURGEONS AND GENERAL PRACTITIONERS. By LEONARD FREEMAN, M.D. Illustrated; price, \$1.50. St. Louis: C. V. Mosby Company, 1912.

TRANSACTIONS OF THE AMERICAN SURGICAL ASSOCIATION, Vol. XXX. Edited by ARCHIBALD MACLAREN, M.D. Philadelphia: William J. Dornan, 1912.

PROCEEDINGS OF THE ROYAL SOCIETY OF MEDICINE, Vol. VI, No. 2, December, 1912. Price, 7s. 6d. net. London, New York, Calcutta, and Bombay: Longmans, Green and Company, 1912.

THE LABYRINTH. AN AID TO THE STUDY OF INFLAMMATIONS OF THE INTERNAL EAR. By ALFRED BRAUN, M.D., and ISIDORE FRIESNER, M.D. Illustrated. Price, \$4.00 net. New York: Rebman Company.

DISEASES OF THE THROAT, NOSE, AND EAR. FOR PRACTITIONERS AND STUDENTS. By W. G. PORTER, M.B., B.Sc., F.R.C.S. (Edin.). Illustrated. Toronto: The Macmillan Company of Canada, Limited, 1912.

PYE'S SURGICAL HANDICRAFT. A MANUAL OF SURGICAL MANIPULATIONS, MINOR SURGERY, AND OTHER MATTERS CONNECTED WITH THE WORK OF HOUSE SURGEONS AND SURGICAL DRESSERS. Edited and largely rewritten by W. H. CLAYTON-GREENE, B.A., M.B., B.C. (Cantab.), F.R.C.S. (Eng.). Sixth edition, revised and illustrated. Toronto: The Macmillan Company of Canada, Limited, 1912.

PRINCIPLES AND PRACTICE OF OBSTETRICS. By JOSEPH B. DE LEE, A.M., M.D. Large octavo of 1,060 pages, with 913 illustrations. Price, cloth, \$8.00 net; half morocco, \$9.50. Philadelphia and London: W. B. Saunders Company, 1913. Canadian Agents: The J. F. Hartz Company, Limited, Toronto.

OBSTETRIC AND GYNECOLOGICAL NURSING. By EDWARD P. DAVIS, A.M., M.D. 12mo volume of 480 pages, illustrated. Price, buckram, \$1.75 net. Philadelphia and London: W. B. Saunders Company, 1913. Canadian Agents: The J. F. Hartz Company, Limited, Toronto.

THE third annual conference of the Public Health Association will be held in Regina next August.

Men and Books

BY SIR WILLIAM OSLER, M.D., F.R.S.

XIX. ROBERT FLETCHER. Any time during the past twenty-five years special visitors to the great medical library in Washington have been received in a room next to that of the principal librarian, and have had their wants and wishes attended to by a courtly and learned man who has just passed away in his ninetieth year. Surrounded by books of reference, volumes of the Index Catalogue, tables strewn with proof sheets and the newest journals, Dr. Robert Fletcher looked like a student of the old days. But he was more—he had two essential qualities of a great librarian—kindliness of manner, and a genuine interest in books. With Dr. John Billings, and the successive Surgeons-General, he has had an important share in two of the greatest bibliographical works of modern times, the Index Catalogue and the Index Medicus. But first a word or two of biography.

Born in Bristol, March 6th, 1823, the son of an accountant, after a few years at the Bristol Medical School, Dr. Fletcher went to the London Hospital, and in 1844 became a member of the Royal College of Surgeons. In 1847 he went to the United States and settled in Cincinnati, where he practised medicine for some years. On the outbreak of the Civil War he joined the 1st Regiment of Ohio Volunteers, served through the war and was breveted lieutenant-colonel, and afterwards colonel, for faithful and meritorious service. In 1871 he was ordered to Washington and was at first attached to the Provost-marshal's office, and took part in the preparation in 1875 of the volumes of Anthropometric Statistics. In 1876 he was transferred to the Surgeon-general's Library. Here he became associated with Dr. John Billings, who had already begun the preparation of the famous Index Catalogue. Nothing comparable with this colossal work had ever been undertaken before in the history of the profession. Not only is it a printed catalogue of the books in the library, but it is an index of all the journal articles. Since 1880 thirty-two volumes have been published, each containing nearly a thousand pages and the total sum of 286,255 book titles, and 1,006,355 journal articles. Not so much the vaulting ambition that promoted the Index excites our

wonder, as that men could be found with the energy and perseverance year by year to carry it out. But in Dr. John Billings, no ordinary mortal, are combined tenacity of purpose, good judgment, and painstaking accuracy. He was fortunate to secure as his lieutenant Dr. Fletcher, and, in the preface to the first volume, acknowledged specially his valuable assistance, without which the work could not have been carried on. After Dr. Billings' resignation the brunt of the work fell on Dr. Fletcher.

As a book of reference the Index Catalogue is of incalculable value, and not enough used by the profession. Any one in doubt about an obscure case, or if a biographical or bibliographical reference is needed, has only to turn up a volume in one or other of the series, and the chances are a hundred to one that he will find helpful information. And a remarkable feature is its accuracy. It is the rarest occurrence to find typographical or other errors.

In 1879 Dr. Billings began the publication of the Index Medicus with Dr. Fletcher as his co-editor, and for the last nine years Dr. Fletcher has been editor-in-chief.

After the organization of the Johns Hopkins Medical School, we asked Dr. Fletcher to give lectures on Medical Jurisprudence, a subject in which he was greatly interested. He also took part in the organization of the Historical Club at the hospital, and in this way, year by year, we learned to know him well, and to appreciate his delightful personality.

One of two things happens after sixty, when old age takes a fellow by the hand. Either the rascal takes charge as general factotum, and you are in his grip body and soul; or you take him by the neck at the first encounter, and after a good shaking make him go your way. This Dr. Fletcher did so successfully that with all that should accompany old age, he carried on his work faithfully to the very end, reading proofs to within a few days of his death. Of few men could it be said more truthfully, "He saw life steadily and saw it whole." As his friend and collaborator, Dr. Garrison wrote me: "Even on his grey days his wonderful will-power and stoicism are something to command admiration. You have probably heard his favourite 'argumentum ad baculum' for any bodily complaint—'treat it with contempt.'" And this is the best lesson of his long and useful life.

Res Judicatæ

ARTIFICIAL PNEUMOTHORAX IN THE TREATMENT OF PULMONARY TUBERCULOSIS

THIS form of treatment is not new, it was first suggested, apparently, by James Carson, in England, who lived about 1840, but its employment in a scientific way is to be credited to the Italian Forlanini, who, as far back as 1882, began to use it. In 1898, Dr. Murphy of Chicago, made a valuable contribution to the subject, but it was not until the last few years that the method gained adherents to any extent. At present there seems to be a wave of enthusiasm in its favour, which has spread from Germany and Switzerland to England and America. The *rationale* of the treatment lies, of course, in setting the affected lung at rest by compressing it as much as possible. It is claimed that the good effects, which are undoubtedly seen not infrequently, are due to the lessening of circulation in the diseased areas, to the consequent lessening of toxic absorption from the lymph, to the compression of cavities, so that the constant centrifugal force of inspiration, which tends to keep open the walls of these cavities, is abolished, and finally, perhaps chiefly, to the arrest of lung movements, giving that physical rest which is so necessary in the treatment of all forms of tuberculosis. It is the belief of Bier, of Berlin, that the compression of the lung induces a passive venous hyperæmia, and that this, as in other parts of the body, promotes fibrosis. Experiments of Tiegel, published last year, in which the pulmonary veins were narrowed so as to induce venous congestion, afford some support to this view.

It is clear that the indications for the establishment of an extensive pneumothorax must be carefully established. The operation is always followed by compensatory overwork on the other side. Consequently the first indication to be met is that the other lung should be sufficiently sound to bear the strain, otherwise an acute process may be set up on the unaffected side, or an old process lighted into activity. While at first it was considered necessary that there should be practically no disease in the other lung, it is now recognized that this indication need not be so narrowly set. A patch of trouble, if not extensive, and apparently arrested,

offers no bar to the treatment. On the other hand, as regards the more affected lung, the indications may be said to be, putting it briefly, chronic ulcerative tuberculosis, particularly with cavitation showing no tendency to heal. In general the severer cases have been chosen which have resisted ordinary treatment, and yet the process must be of a chronic nature; acute or subacute inflammatory, infiltrative processes offer an element of danger, in the sense of their being liable to be increased in activity by the operation. There are, nevertheless, many cases without cavities of any size, and yet of a chronic type, in which the lung may be compared to marshy soil; there is a tendency to miliary destruction combined with areas of fibrosis. At Saranac Lake, where I had several opportunities of talking over the question with Dr. Trudeau, Dr. Baldwin, Dr. Brown, and others, they were inclined to include such cases as being favourable for the injections. Recurring hæmorrhages offer a strong indication for it. The compression of the lung seems to stop these with a considerable degree of certainty. Adhesions offer no contra-indication, but, if extensive, they are apt to prevent proper collapse of the lung, and consequently to lessen the good effects that might otherwise result from it. It has been found that many of the adhesions commonly existing in tuberculosis can be stretched, or broken, by careful distention with the gas, and a case in which it seemed at first hopeless to attempt gas injections, has not infrequently, by dint of gradually increasing the amount of gas injected, given ultimately a very good result.

The good effects of the injection are seen chiefly in the lessening or disappearance of fever, in the slowing of the pulse, in the very considerable diminution, amounting often to a disappearance, of the sputum, and in an increased sense of well-being. It is now generally recognized that the pneumothorax must be maintained for long periods of time before one may speak of cure. An average of one and a half to two years is generally considered advisable. In one patient of Spengler's it was kept up for seven years, and when finally allowed to disappear, the lung even then expanded normally. In two patients of Forlanini's the lung was kept compressed on one side for about two years, with cure; subsequently the other side became diseased, and Forlanini did not hesitate to apply the pneumothorax treatment to this side also, relying upon the first side, now cured, to carry on the work. In both cases the ultimate result was excellent on both sides.

As to statistics, while the treatment has been extensively used only within recent years, it is becoming more and more evident that

the method, in carefully chosen cases, is being abundantly justified by its results. It is clear, of course, that statistics in such a disease as this, of so protean a variety in its course, must be very carefully sifted. In 1910 Brauer reported upon forty cases, and the result was in 45 per cent. very good, in 17.5 per cent. merely good, in 15 per cent. sufficient to justify the use of the method, and in 15 per cent. insufficient to justify it, while 7.5 per cent. died. Saugmann reports thirty-five moderately severe cases. Of these the bacilli disappeared entirely in eighteen; five were completely "cured" or arrested (the intervals running from four months to three and a half years), three were free of symptoms, but still under treatment; ten were definitely improved, while four died. In a recent article by Lucius Spengler, of Davos, upon his "permanently arrested" cases (*Dauererfolge*), taking into consideration all his patients up to August, 1910, and taking only the cases in which pneumothorax treatment had been discontinued nine months previously, requiring also as conditions of cure that there should be no fever, nor cough, nor sputum, or if sputum in a few cases, that it should be free of bacilli; and that all patients should be fully able to work, I find his figures as follows: The number of patients fulfilling these conditions was fifteen. Of these, twelve gave at the beginning a very grave prognosis, and three a bad prognosis. In seven the pneumothorax was right-sided, in eight left-sided. The length of treatment was in one case two months, in one case five months, in six cases seven and a half to ten months, in three cases ten to sixteen months, and in four, eighteen to twenty-four months. The lapse of time since the pneumothorax disappeared varied from nine months to four years. Spengler concludes with the remark that such results ought to give proof of the curability, even of desperate cases, by means of artificial pneumothorax.

THE TECHNIQUE OF THE INJECTION.* There is no need of costly or complicated apparatus. Perhaps the manometer is absolutely necessary. This gives the one sure indication that the point of the needle lies in the pleural cavity and not in the lung, or in adhesions, or outside the chest altogether. The ordinary respiratory variations of intrapleural pressure are immediately recorded in the rise and fall of the coloured fluid in the manometer; not until this is seen, should the nitrogen gas be allowed to flow into the chest. Perhaps the most convenient and the safest needle is the one devised

*The interested reader is referred to the article of Robinson and Floyd (*Archives of Internal Medicine*, April, 1912), in which the details of technique are more fully set forth.

by Floyd of Boston.* The nitrogen can be made from the appropriate chemicals, but it is more convenient to buy it ready made in tanks. Two two-litre graduates are used, one of which is filled with pyrogallic acid solution, to take up any trace of oxygen that may get in. The two bottles are connected by rubber tubing and have close-fitting rubber corks. From the tank, nitrogen is allowed to flow in under pressure, displacing as it enters the solution into the other bottle. This other bottle is used as the source of pressure, and the pressure amounts to a column of water representing in height the difference between the levels of the solution in the one and the other, amounting to from five to fifteen or twenty centimetres. As the gas runs into the chest the solution crosses from one bottle to the other and the number of c.c. of gas is read off on the side of the bottle. It has been found wise not to put in, at the first injection, more than four hundred to six hundred c.c. of gas. Later ten or twelve hundred may be sent in without fear of trouble. But naturally one should always stop if the patient complains of any pain or dyspnoea. I think it wise that, where possible, the patients should be in hospital for at least the first two or three weeks of their treatment, in order that they may be kept from undue exercise, and particularly that the result obtained may be controlled under the x-rays, for it would seem that unless one gets a fairly complete collapse of the lung, treatment by this method is apt to be insufficient, and this collapse can only be correctly estimated by an x-ray photograph.

E. W. A.

* To be obtained of Codman and Shurtleff, surgical instrument makers, Boston.

It would appear that the directors of the imperial post-office in Berlin have come to see the error of their ways and are even anxious to make amends. For some time past a regulation has been in force whereby women employees in the postal service of the German capital have been unable to consult a physician of their own sex, save by special order. Now, however, all this is changed, and a woman doctor has been officially appointed whose duty it is to give professional services to any woman employee who may require them.

Retrospect of Surgery

PYELONEPHRITIS AND THE PYELITIS OF PREGNANCY

THE place which tuberculosis of the kidney has occupied on the surgical horizon during the last five or ten years is being rapidly filled by that of the subject of pyelonephritis in general, and more especially of pyelonephritis of ætiology other than tuberculous. This is not because of the lessened importance or incidence of tuberculosis, but for the reason that urological surgery at least has recognized its importance and to a large extent digested the facts of its diagnosis and treatment. While other pyelonephritides, such as that caused by stone, have long been recognized, it is not so long since that type, fairly exemplified in the so-called pyelitis of pregnancy, and till recently ill-defined and ill-described, has forced itself on the clinical conscience. It is this type which is looming large in the urological literature of to-day. It presents itself as an acute or a chronic infection involving not only the pelvis of one or both kidneys, but almost invariably including the parenchyma. The commonest infecting organism is the bacillus coli, but other bacteria such as staphylococcus and gonococcus occur. It may resolve entirely, leaving an apparently undamaged kidney, or it may persist indefinitely, and it may evidence itself as an acute illness or remain as a simple pyuria.

A recent review of the literature dealing with the ætiology, symptomatology, diagnosis, prognosis, and therapy of these conditions, brings up for answer certain questions.

First, regarding the ætiology. 1. What is the source and nature of infection? Do the bacteria reach the kidney through the blood or lymph stream or do they ascend the ureter from the bladder and so cause infection?

2. Are there contributing factors? 3. What bacteria are responsible?

The route of infection is not a settled matter. Probably some cases are infected from the blood and lymph stream, others by an ascending infection. The greater incidence of the condition in women, where owing to the short urethra a cystitis is of commoner occurrence, is perhaps the strongest argument for the latter route; while the analogy of blood and lymph borne infection as it obtains

in tuberculosis of these organs, and such evidence as is supplied by occasional blood cultures, or the simultaneous occurrence of thromboses, point as strongly in the opposite direction. Experimental work, such as that of Frank, would show a close connexion between the lymphatics of the larger bowel and kidney, while Bauereisen has shown a lymph stream from bladder to kidney about the ureter.

Whatever the path and whatever the infecting organism, there exists a remarkable unanimity of opinion that there is some other factor than a simple bacteriuria. This is exemplified in the pyelitis of pregnancy, where a bacteriuria may exist for some time without giving rise to symptoms, but let some interference with the urinary flow occur—some obstruction to the drainage of one kidney—a urinary stasis and an invasion of that kidney, with symptoms, immediately occur. What may bring about the obstruction is not always clear. It is possibly a gravid uterus or other pressure on the ureter from without, some abnormal blood vessel which acts as a band over which the ureter kinks itself, a stricture of the ureter, a movable or floating kidney with a resulting kink of the ureter; but that some interference with the free flow of urine is present is the opinion of those best qualified to think so.

Mirabeau has classified these cases according to the infecting organism, gonococcus type, pyogenic type, bacillus coli type, and tuberculosis type. Storekl would classify them according to the obstruction: (1) Mild, a simple dilatation of the ureter without infection, a hydro-ureter. (2) Moderate, the same as type 1 but infected, as evidenced by pyuria, a pyelonephritis. (3) Severe, a pyonephrosis. A study of these two classifications should give a correct idea of the probable ætiology.

The pathological picture varies from a dilated pelvis without infection to a pyonephrosis, the common type being a slightly dilated pelvis filled with purulent urine and a kidney with many small abscesses throughout, often most marked beneath the capsule. The symptoms are those of an acute infection, varying according to the infecting organism and the degree of obstruction. The most important sign is pyuria, and the onset is almost invariably marked by symptoms referable to the bladder alone.

The prognosis likewise will depend upon one's ability to improve the drainage of the involved portion of the urinary tract. Many cases recover entirely; others are never quite the same; and a persistent bacteriuria, with or without pus, but without marked symptoms, is not uncommon.

Treatment should be conservative at first, and only in case of

failure should recourse be had to such operations as nephrectomy. The principal means at one's disposal are posture, plentiful use of fluids, urinary antiseptics, lavage of the renal pelvis, and vaccines, which should be autogenous. All are useful, none is infallible. Recently Koll has tried the systemic and local use of aluminum subacetate in those conditions due to bacillus coli, with very encouraging results.

In the past these cases undoubtedly have frequently figured as cystitis, and it is only now that we are learning that cystitis, i.e., primary cystitis, is a rare disease, while symptomatic cystitis or cystitis secondary to disease elsewhere is a common one. In no case has this lesson been pressed home to observing men better than in the case of tuberculosis of the genito-urinary system and nowhere is that lesson better repeated than in such instances as those to which this review refers.

G. VENUS, *Zeit. f. d. Grenzgeb. u. Med. u. Chir.*, Bd. xiv., No. 10, 11, 12, August 1911.

C. FRANK, *Berl. Kl. Woch.*, October 30th, 1911.

ANDREWS, *Brit. Med. Journ.*, May 18th, 1912.

O'CONNOR, *Brit. Med. and Surg. Journ.*, November 7th, 1912.

J. S. KOLL, *Zeit. f. Urol.*, Bd. vi, Hf. 6.

R. P. CAMPBELL.

THE Vancouver hospital board decided, at a meeting held October 29th, to request the municipalities of South Vancouver, Point Grey, and Burnaby, to give some financial assistance to the hospital in return for the treatment of patients belonging to these municipalities. The request has not received favourable consideration as yet. The municipal council of Point Grey met on the afternoon of December 28th, and the matter was discussed. It was considered by some of those present that, if a contribution were made, Point Grey should be represented on the hospital board and an agreement made whereby the Vancouver General Hospital should undertake to accept all patients from Point Grey, including cases of infectious disease. The matter was left over for consideration by the new council for 1913. In the case of Burnaby, the council declined to accept any responsibility, on the ground that none of the patients had been sent to the hospital by order of the council. We have not been informed of any action taken by South Vancouver in the matter, but it would appear that the lack of hospital accommodation in that municipality is keenly felt.

Obituary

DR. THOMAS A. McDougall, of London, Ontario, died suddenly in the forty-sixth year of his age. Dr. McDougall had not been well for some time, and dropped dead as he was getting up after taking a short rest.

DR. CHAUNCEY E. COKE died at Winnipeg, February 7th, in the forty-third year of his age. Dr. Coke was born in Watford, Ontario, and graduated in 1898 from Trinity College, Toronto. He then went to Manitoba, where he taught for a number of years, and for the last seven years he practised his profession at Beausejour, Manitoba. Dr. Coke also studied at the universities of Edinburgh and Glasgow.

News

MARITIME PROVINCES

THE establishment of a tuberculosis hospital at Halifax is now engaging the attention of the city council. An unoccupied building in the south end of the city has been granted as a hospital, but objections to this were made by the residents and the resolution rescinded. Several suggestions have been made but the councillors have been unable to reach a decision; the matter therefore has been referred to a committee for further consideration.

THREE hundred and eight patients were treated in the Hotel Dieu at Chatham, New Brunswick, during the year 1912; twenty operations were performed and nine deaths occurred. At the Fredericton Hospital three hundred and five patients were treated.

At the county council meeting, which took place January 23rd, the annual grant of two thousand dollars was made to the Moncton Hospital. An additional grant of one thousand dollars, however, was refused. Improvements and extensions were made to the hospital last year and an x-ray apparatus installed. This involved

a large expenditure and the financial statement of the board shows a deficit of four thousand eight hundred dollars.

UNUSUAL interest has centred round the hospital question at Sydney for some time past. Better hospital facilities are now needed and, to quote from the report of the medical health officer, "Sydney requires a fire-proof, concrete or brick building of fifty beds, well-equipped in every respect, with a contagious annex of ten beds, costing in all at least \$55,000." Since 1901 there appears to have been some difference of opinion concerning the maintenance of the hospital. The matter was brought up before council in May, 1901, and later in the year it was decided that a yearly grant of three hundred dollars should be made by the city to the Dominion Iron and Steel Company. This money was not paid, however, and, in 1906, the city solicitor gave a legal opinion to the effect that the grant was illegal and that the city had no power to make it. No definite action was taken until 1909, when \$860 was paid to the Steel Company in settlement of all claims to date. In 1910 and in 1911 the \$300 was paid. The question at issue is whether or not should the city of Sydney continue to pay the \$300 grant to the Dominion Iron and Steel Company's hospital.

THE fees charged at the Pictou Hospital have been increased from \$3.50 to \$5.00 a week for public ward patients, and from \$8.00 to \$10.00 a week for private patients. The increased charge to take effect from the first of the present month.

It is probable that, during the present session, provision will be made by the New Brunswick Legislature for the erection of a number of hospitals for the treatment of advanced cases of tuberculosis and for the appointment of a trained medical examiner, whose duty it will be to visit the various counties to conduct examinations and to give instruction in connexion with the prevention of this disease. He will be assisted by a staff of nurses and a system of county clinics will be inaugurated.

THE representatives of the Anti-tuberculosis League met the committee of the Halifax city council on February 6th, when the question of the tuberculosis hospital came up for discussion. The committee suggested that the sanatorium be placed between the Tracoma Hospital and the Smallpox Hospital on a plot of five acres to be secured by the city and given to the trustees of the League,

the ground, if used for any purpose other than the erection of a tuberculosis hospital, to revert to the city. It was proposed also that the city should contribute \$1,000 towards the cost of building a ten thousand dollar sanatorium and should make an annual grant of \$500 towards the maintenance of the proposed institution. If the city will grant \$1,000, the League is prepared to subscribe \$5,000; and it is thought that \$2,000 could be secured from the provincial government, \$500 from the county of Halifax, and \$1,500 by private subscription.

THE first annual report of the St. Boniface Hospital states that, during 1912, 6,284 patients were admitted to the hospital, and the total number of patients treated was 6,527; of these 6,024 were discharged and 243 died.

SEVERAL cases of diphtheria have occurred in Halifax during the last few weeks.

ONTARIO

A COURSE of lectures has been given at the Canadian Military Institute by the Toronto Branch Association of the Militia Medical Officers. The subject of the first lecture, which was given by Lieutenant-Colonel J. A. Grant, on January 29th, was "The medical service at Magersfontein." On February 6th, Lieutenant-Colonel A. H. Macdonnell spoke on "The infantry division in attack," and on February 13th, Major J. A. Shaw chose as his subject, "Transport and supply, and their relation to the medical service in the field." On each occasion the lectures were followed by an interesting discussion.

THE medical officer of health for Petrolea states in his annual report that, during 1912, sixty-nine births and fifty-four deaths occurred in the town. The general health of the citizens was particularly good, and the only cases of contagious disease which occurred were fifteen cases of measles and one of scarlet fever; in addition, two cases of tuberculosis were reported.

At a meeting of the Hamilton Board of Control on January 30th, a deputation asked that \$25,000 be granted by the city to the Infants' Home and that the Jeannette Lewis fund be placed at the disposal of the hospital committee. They also requested that the site already chosen, near the General Hospital, be abandoned for a

site in the western part of the city, where the children would be able to get fresh air and enjoy healthful surroundings. The proposed hospital would only accommodate thirty-five patients and this the deputation considered was not enough; they were of the opinion that provision should be made for at least sixty children. The matter was again taken up on February 8th. Mr. T. H. Pratt, chairman of the hospital board, strongly opposed the suggestion, stating that he did not consider it right to use money, which had been provided for the hospital which had been commenced, for another hospital. It was decided that a committee should see Miss Lewis and should ask her to join the other ladies who are interested in the matter in an effort to collect the necessary funds for a hospital to be built in the west end and to be known as the John Patterson Memorial Sick Children's Hospital. At first this hospital would be managed by a board of ladies, and, later on, might be taken over by the general hospital board, who would then use their children's hospital as an annex to the General Hospital.

THE Port Hope Hospital was formally opened on Wednesday, January 15th.

DR. ROBERT LYLE SANDERSON, who for many years has been the medical officer of health for Sparta, has resigned on account of ill-health and advanced years. He is succeeded by Dr. Shannon.

SMALLPOX is so prevalent in Waterloo that it has been necessary to order the compulsory vaccination of every resident who has not been vaccinated during the last seven years. As an additional precaution, all the schools have been closed.

A COMMITTEE has been formed to consider the advisability of building a hospital at Walkerville.

THE death rate in Lindsay for 1912 was 11.7 per thousand, and the town was exceptionally free from contagious disease throughout the year.

THE smallpox epidemic is over in Hamilton. No fresh cases have occurred for some weeks.

SEVERAL cases of smallpox have been reported at Niagara Falls.

THE tuberculosis hospital at Brantford is almost completed. The cost of construction and equipment has been about twenty-five thousand dollars.

A PSYCHIATRIC clinic is to be established in connexion with the new General Hospital at Toronto. The site will be provided and the institution maintained by the city, but the building will be erected by the provincial government.

A SERIOUS epidemic of a malignant form of measles with diphtheria has broken out in the Toronto Infants' Home. The disease developed in a child after admission to the home and rapidly spread. The situation was rendered all the more difficult as the home was overcrowded and, owing to financial stress, deficient in the most improved sanitary arrangements. Twenty-five deaths have occurred and one member of the staff has contracted the disease.

APPLICATION is to be made to the Legislature by the Toronto Board of Health for permission to license lodging-houses in cities of over one hundred thousand population and to limit the number of inmates in each. In one instance, an inspection of lodging-houses revealed the fact that five hundred and thirty-nine men were crowded into nine houses.

It is proposed to establish a Consumptive Preventorium in Toronto. The necessary property has been secured and a request has been made that a civic grant be given for this purpose. The intention is to establish a Home for children who otherwise would be exposed to the dangers of a tuberculosis environment, and to ensure their getting plenty of fresh air and good nourishment.

IN his report, Dr. Bruce Smith, the inspector of hospitals and charities, speaks very highly of the Toronto Hospital for Sick Children. Some additions are now being made to the hospital which will increase materially the accommodation. At present the hospital contains two hundred beds, and a further one hundred and fifty are provided at the Lakeside Home for Children which is open during the summer. In November last there were sixty-eight boys and forty-six girls in hospital, of whom seventy-one were receiving free treatment. The daily cost of maintenance during the year was \$1.98 for each patient, the total expenditure for maintenance amounting to \$104,478.

IN his annual report, Dr. H. O. Howitt, the medical health officer of Guelph, gives the following figures in speaking of contagious disease: there were reported last year, 63 cases of diphtheria; 15 of scarlet fever, 4 of measles; and 15 of chicken-pox. Dr. Howitt recommends that, in cases where patients honestly believe vaccination to be dangerous, it should not be enforced, except when smallpox is known to be present in the city.

At the annual meeting of the Conservation Commission, held at Ottawa, January 21st, it was suggested by Dr. C. A. Hodgetts that a national housing and town planning congress should be held in Ottawa as soon as possible, with a view to stimulating better housing and town planning. He also spoke of the need of securing uniform statistics concerning births, deaths, and marriages in the various provinces of the Dominion.

A SURGICAL wing is to be added to the Oshawa Hospital. The estimated cost is \$10,000, which amount has been given by Mr. and Mrs. G. H. Pedlar.

DR. WILLIAMSON, the medical officer of health at Kingston, in his annual report contrasts the number of cases of infectious disease which occurred in Kingston during the years 1911 and 1912, and is able to show a decrease in the number of cases of typhoid, diphtheria, and scarlet fever. Means are being taken to ensure a better water supply, and, as soon as it is possible to do so, a thorough examination of the intake pipe is to be made.

DR. E. J. FOSTER, Dr. R. E. Johnson, and Dr. M. E. Reid, of Toronto, have been elected members of the Royal College of Surgeons.

At a recent meeting of the Pharmacy Council for Ontario, a discussion arose concerning the employment in hospitals of unqualified dispensers. Several complaints have been made to this effect, and a letter has been sent by the registrar of the college to the superintendents of all hospitals throughout the province, bringing to their attention the fact that the Pharmacy Act requires that no one, other than a qualified chemist or physician, shall dispense drugs, medicines, or poisons.

DR. M. H. LIMBERT has been appointed medical officer of health at Parry Sound, at a salary of \$200 a year.

THE death rate from typhoid fever in Toronto during the month of January was 4.8 per 100,000 of population. It is interesting to note that in 1905, during the same month, the death rate was 32.1, and in 1910, 57.3 per 100,000 of population. The average rate during January for the last ten years was 20.9 per 100,000 of population, so that this year there was one one-fifth of the average number of deaths from this cause. As for tuberculosis, during the same month there were 1,122 cases on the visiting list, forty of which were discharged, twenty deaths occurred, and one hundred and nine fresh cases were reported. On February 12th, there were two hundred and forty-two patients suffering from tuberculosis in the city hospitals. The mortality from pneumonia and bronchopneumonia during January was heavy. Dr. Hastings stated in his report that ninety-seven deaths were directly attributable to these diseases and that in forty-two additional cases pneumonia, with other complications, was the cause of death. Forty-eight deaths occurred as the result of the measles epidemic.

THE condition of street cars frequently leaves much to be desired, and, as an insanitary car is a probable source of disease, it would seem advisable that they be subject to inspection by some duly qualified person. At a meeting of the Toronto Board of Health, which was held February 12th, it was considered that such inspection should be made by the medical officer of health and that he should be authorized to order any car that was unfit for use off the line. Dr. Hastings was asked to discuss the matter with the Provincial Health Department.

SEVERAL cases of smallpox are undergoing treatment in the Swiss Cottage Hospital, Toronto. In two cases, the disease was contracted from a man, supposed to be suffering from chicken-pox, who came to the city to visit his sister and at the same time paid a visit to his brother. The sister contracted the disease, as did also a man living in the brother's house.

A HOSPITAL for the treatment of measles is to be built near the present hospital in Riverdale Park, Toronto. Until the hospital is ready for use, cases of the disease will be isolated and treated in a house which will be used as a temporary hospital.

A REQUEST for a grant of \$15,000 has been made to the city council by the London Hospital Trust. If the money is granted,

it will be expended on improvements and additions to the Victorian Hospital.

A NEW wing is to be added to the Pembroke Cottage Hospital. The accommodation for private patients is not enough, and it is intended that the new wing shall contain sixteen rooms for the use of such patients.

THERE was a large increase in the number of cases of infectious disease reported in the province during January when compared with the same month last year. This year 1,709 cases were reported and 237 deaths, while in January, 1912, only 927 cases were reported and 125 deaths. The increase is particularly marked in measles, scarlet fever, and typhoid, as will be seen from the following figures: January, 1913—measles, 705 cases, 42 deaths; scarlet fever, 359 cases, 14 deaths; typhoid, 101 cases, 35 deaths. January, 1912—measles, 82 cases, 2 deaths; scarlet fever, 285 cases, 10 deaths; typhoid, 41 cases, 12 deaths. These figures are not quite correct, as some of the municipalities of the province have not sent in reports to the chief medical health officer.

Two hundred patients were admitted to the Kingston General Hospital during the month of January. This is the largest number ever admitted in any one month.

THE plans for an isolation hospital at St. Thomas have been approved by the provincial health authorities and by the Daughters of the Empire, who have undertaken to furnish the institution. Two cottages, each to cost about \$3,000, will be built, one of which will be used for cases of diphtheria, the other for scarlet fever. The smallpox hospital will remain unaltered for the present, but, later on, it is hoped to make some improvements.

SEVEN hundred and seventy-six patients received treatment at the John H. Stratford Hospital at Brantford during the year ending September 30th, 1912, and two hundred and sixty-seven operations were performed. Several improvements to the buildings are needed, among them being a new wing for public ward patients, and new operating suites. The hospital is supported chiefly by public subscription, the government grant for the year 1912 amounting to \$3,075. A Nurses' Home, which is not yet quite completed, is being provided by the Women's Hospital Aid.

QUEBEC

THERE are six hundred and thirty-three patients in the Verdun Hospital for the Insane at Montreal.

EIGHT hundred and ninety-nine patients were admitted to the Montreal Homœopathic Hospital during 1912, and eighteen hundred and ninety outdoor patients received treatment. The financial statement showed a balance of \$193 in favour of the hospital.

ONE hundred and fifty first-aid certificates, thirty-six vouchers, and seven labels were issued last year by the Quebec Provincial Council of the St. John's Ambulance Association. The centre was formed in 1897 and since then almost six hundred certificates have been given. Last year two hundred and twenty-five persons completed the course in first-aid in Montreal.

TWENTY-FOUR cases of smallpox, thirty-one of diphtheria, and ten of typhoid were reported in Hull during 1912.

THE annual dinner of the Société Médicale de Montréal was given at the Ritz-Carlton on Monday, February 3rd, Dr. J. P. Decarie presiding. The members and guests present numbered over one hundred and thirty, and among the latter were: Hon. J. L. Decarie, provincial secretary; Dr. D. J. Evans, president of the English Medical Society; Dr. H. A. Laffeur; Dr. E. P. Lachapelle; Dr. Gardner; Mayor Lavallee; Colonel Aubry; Dr. Savard, of the Quebec Medical Society; and Dr. Normand, of Three Rivers, who represented the French Medical Association of North America. It was suggested by Colonel Aubry, that the provincial government should establish a bureau of legal-medical research. This suggestion was promised favourable consideration by Mr. Decarie, speaking on behalf of the provincial government. An interesting feature of the occasion was the presence of almost one hundred ladies, who were served with refreshments upstairs and afterwards listened to the speeches made.

DURING January, one hundred and eighty-five deaths from contagious disease occurred in Montreal; and a large percentage of these were due to tuberculosis. One hundred and sixteen cases of measles were reported, of which two were fatal; forty cases of scarlet-fever, with two deaths; seventeen cases of diphtheria, with five deaths; two cases of typhoid, with one death; fifteen cases of

chicken-pox; two cases of meningitis, with one death; fourteen cases of smallpox; seven cases of erysipelas, with two deaths; and four deaths from gripe.

THE civic grant to the Montreal Hospital for Incurables has been increased from thirty to fifty cents a day for each patient.

THE nineteenth annual meeting of the board of governors of the Royal Victoria Hospital, Montreal, took place January 21st. Last year 5,566 patients were admitted to the hospital, an increase of 893 over the previous year. Of those admitted, 4,194 were residents of the city. In the outdoor department 4,279 patients, were treated, and the ambulance received 1,941 calls. Two hundred and ninety-eight deaths occurred, seventy-four of which took place within forty-eight hours of admission. The financial statement for the year showed a deficit of \$11,328; this, however, was paid off by the members of the board. The average daily cost for each patient was \$2.07.

At the Western Hospital, Montreal, 1,416 patients were treated during the past year, an increase of 81 over the year 1911. There were 74 deaths, and of these 22 died within twenty-four hours of admission. There were 251,808 hospital days; the ambulance was called out 864 times; and in the outdoor clinic 11,657 patients were treated. The demand for accommodation is increasing, and it will be necessary in the near future to extend the hospital or to make some arrangement whereby this demand may be satisfied.

A BRANCH of the Victorian Order of Nurses has been organized at Ste. Agathe des Monts. It is probable that two nurses will be maintained.

DURING the week ending February 8th, 250 cases of contagious disease were reported in Montreal; 12 were cases of diphtheria, 27 of scarlet fever, 136 of measles, 44 of tuberculosis, and 7 of smallpox. There were 173 deaths in the city, 34 of which were the result of contagious disease. There were 274 births during the week.

THE following grants have been made by the Montreal Board of Control: \$10,000 to the pure milk stations; \$2,500 to the General Hospital, and \$1,000 to the ambulance service; \$1,000 to

the Western Hospital; \$2,000 to the Sœurs de la Misericorde; \$2,000 to the St. Justine Hospital; \$2,500 to Notre Dame and \$1,000 for the ambulance; \$1,500 to the Hôtel Dieu and \$500 for the ambulance; \$500 to the Children's Memorial Hospital; \$1,200 to the Grey Nuns; \$500 to the Protestant Infants' Home; \$1,000 to the Orphelinat St. Arsène; \$500 to the Grace Dart Home; \$500 to the Montreal Maternity Hospital; \$500 to the Montreal Foundling and Sick Baby Hospital; \$600 to the Institut des Aveugles de Nazareth; and \$1,000 to the Hôpital St. Luc. In addition, a grant of \$3,000 has been made to the Royal Edward Institute and to the Bruchesi Institute; \$850 to the Victorian Order of Nurses; and \$250 to the St. John Ambulance Association.

DR. ALBERT LESAGE has been appointed to the chair of pathology at Laval University in succession to the late Dr. Hervieux.

MANITOBA

THE members of the executive of the Manitoba Union of Municipalities waited on the government, January 15th. Among other requests made were the following, which were sanctioned by the government: "That a commission be appointed to inquire into drainage matters with a view to amending the Act; that hospital secretaries be required to send statements of bills for patients to the municipalities concerned; that there be a monthly inspection of children in town and village schools and a quarterly inspection in country schools by the district health officer, to discover any ailment among the children attending the school; and that a definition be made of the liability of heads of families for care during infectious and contagious diseases."

THE report of the provincial board of health for the year 1912 gives a satisfactory statement concerning the general health conditions throughout the province, no serious outbreaks of infectious disease having occurred. As in other places, the infant mortality is higher than it should be: in 1910 it was one hundred and forty-five to the thousand, and in 1911 one hundred and twenty-eight to the thousand. In order to lessen to some degree the number of cases of tuberculosis, a sanatorium has been established at Vinette, where early cases of the disease may receive treatment.

SCARLET fever is very prevalent in Winnipeg. The hospital on Bannatyne Avenue has been greatly overcrowded, sixty-three

patients undergoing treatment there at one time, although there is really only room for fifty. The building which had been fitted up as a nurses' home in connexion with the King Edward Hospital has been utilized as a temporary hospital for scarlet fever patients, and the congestion relieved to some extent.

THE annual meeting of the governors of the Brandon General Hospital was held January 20th. On this occasion, reference was made to the need of increased hospital accommodation in a town growing so rapidly as Brandon. A maternity hospital is badly needed also. During the past year sixteen hundred and eighty cases were treated in the hospital and the accommodation severely taxed.

DR. A. E. Walkey has been appointed medical officer of health for Portage la Prairie at an annual salary of \$200, in the place of Dr. A. P. MacKinnon. Dr. MacKinnon resigned as he felt that the remuneration was not sufficient for the amount of work involved, but offered to continue his duties if he were reappointed at a salary of \$300 a year.

A DELEGATION from the hospitals of the province waited on the premier, February 4th, with the request that the municipal grant for charity patients be increased. The premier stated that as this would involve the principle of direct taxation, he felt that the government could not take such a step without first consulting the people. It was then requested that the hospitals should be allowed to charge \$1.50 a day, and if the patient failed to pay this sum, a charge of \$1.00 should be made to the municipality. The premier promised that the matter should receive consideration.

THE following are the figures given in the annual report for 1912 of the North Winnipeg Hospital: patients treated in hospital, 281; operations, 70; births, 60; accidents, 27; deaths, 14; number of days treatment, 4,318. In the outdoor clinic, 1,428 patients were treated and 3,136 consultations were held. The financial statement shows a surplus account amounting to over \$2,750.

THE Hospital for the Insane which has just been built at Brandon, to replace the one which was burnt down two years ago, was formally opened by the lieutenant-governor on Saturday, February 8th.

SASKATCHEWAN

THE Regina General Hospital has met with a certain amount of criticism in the past, but important changes are now being made and one feels confident that, under the new régime, the institution will prove itself worthy of the highest regard and of true benefit to the community.

THE plans are being prepared for a hospital at Alsask. If the hospital is established, it is intended that it shall be open, not to residents of Alsask only, but to patients from neighbouring municipalities and from the surrounding country. Five municipalities have been asked to subscribe \$3,000 each, thus providing \$15,000. The cost of the proposed building is estimated as \$5,000; the site has been given by the Canadian Northern Railway and the equipment of the private wards has been promised by certain merchants of Alsask. It is thought, therefore, that when all the expenses of building, etc., have been paid, a balance will remain of from seven to eight thousand dollars and this is to be used as an endowment fund.

THE new smallpox hospital at Saskatoon is now completed and already has at least one patient. Over sixteen hundred patients were treated in the Saskatoon General Hospital last year.

THE Waddell Memorial Hospital, which is about to be built at Canora by the Presbyterian Board of Home Missions, will consist of a four-storeyed building forty-four feet by seventy-eight feet, of solid brick on a cement and rock foundation. Later on a Nurses' Home and a Superintendent's residence will be erected on either side of the building.

It is probable that a hospital will be established at Gravelbourg, a rapidly growing town seventy miles south of Moose Jaw.

THE Lady Minto Hospital at Melford, which was established in 1907, can now accommodate twenty patients, and has treated, since its inception, eight hundred and thirteen patients, two hundred of whom have been unable to pay anything. Owing to the increased cost of living, the hospital authorities have been compelled to advance the charges for public ward patients from \$1.00 to \$1.50 a day.

THE hospital at Big River, the headquarters of the Mackenzie-Mann lumbering interests, ninety-five miles north of Prince Albert, was burnt down early in February. The fire originated from an overheated furnace pipe. Fortunately the patients were all removed in safety from the building.

A MEETING of the board of directors of the Victoria Hospital, Prince Albert, took place January 14th. Among other matters discussed on this occasion, was the establishment of an isolation hospital. It was suggested that such an institution might be established in the north-west part of the city, and a committee was appointed to investigate the matter. A good deal of difficulty has been experienced in securing probation nurses; the question of fees was discussed and it was decided to write to several hospitals to secure information as to fees paid to probationers. It was also decided that a letter should be sent to each physician in Prince Albert, inviting him to join the staff of the hospital and to assist in the organization of a permanent medical staff.

DR. STAFFORD, who has been acting as medical officer of health at Saskatoon during the absence of Dr. McKay, has resigned.

ALBERTA

ALTHOUGH Moose Jaw has been visited by more than one severe epidemic during the year, the number of cases of infectious disease reported during 1912 is much less than in 1911, the exact numbers being three hundred and forty-four and five hundred and fifty-two. There was a good deal of smallpox in the city from March to July, some fifty-four cases being reported. Then in July came an epidemic of typhoid, which continued till well on in November, one hundred and six persons suffering from the disease. Here again the number is less than in the preceding year, when two hundred and eighteen cases were reported.

THE necessary land has been bought and a large building already secured, which it is intended shall form the nucleus of a new hospital at Lloydminster. The present hospital is adequate no longer and it is hoped that the new hospital will be in use before the end of the year.

An arrangement has been suggested whereby the Calgary city council will appoint six of the directors of the General Hospital,

the subscribers will appoint four, and the medical profession the other four. It is proposed to submit a by-law for \$150,000 and, if this is granted, to expend the money on increasing the hospital accommodation. The present building can admit about one hundred and twenty patients.

DR. MIDDLEMASS has been appointed medical officer of health at Wainwright.

BRITISH COLUMBIA

THREE hundred and twenty-five thousand dollars has been granted by the city of Vancouver to the General Hospital. With this a new isolation hospital is to be built, as the present buildings are quite inadequate and, in fact, were never intended to be used as a permanent hospital. The new hospital, when completed, will consist of four units, for scarlet fever, diphtheria, tuberculosis, measles and chicken-pox, each of which will cost \$75,000,—in all \$300,000. Two of the units will be erected this year, and for this purpose \$135,000 have been appropriated from the grant just made. The remainder will be expended,—\$100,000 on a nurses' home and \$90,000 on improvements to the main building of the General Hospital. A smallpox hospital has been established at Hastings.

APPROXIMATELY fifty-five hundred patients were treated last year at the Vancouver General Hospital. The daily cost for each patient was about \$1.93, and about seventy-five per cent. of those treated were public cases, of whom less than thirty per cent. were able to pay for treatment. The deficit for the year amounted to \$30,000.

THE directors of the King Edward Sanatorium for Consumptives at Tranquille have asked the provincial government to grant \$150,000 to the sanatorium. The money is needed to build a new hospital for the treatment of advanced cases, and it is estimated that a hospital which would contain one hundred beds would be built for \$125,000. The present buildings are the original farm structures of the Fortune Ranch, which was bought in 1907 and converted into a hospital. They are insanitary and quite inadequate for the purpose for which they now serve. Other improvements are needed also, and the remaining \$25,000 would be expended on the other buildings and on the grounds of the institution. The directors also pointed out to the government that, in order to put

the institution on a sound basis financially, an annual per capita grant of \$1.00 for each patient treated and an additional fifty cents for each non-paying patient, should be made.

THERE were two hundred and sixty-eight deaths in Victoria last year, a death rate of only 6.63 per thousand of population.

DR. BAPTY, of Victoria, has been appointed inspector of hospitals for the province.

Canadian Literature

ORIGINAL CONTRIBUTIONS

The Canadian Practitioner and Review, January, 1913:

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| The Treatment of Inoperable Cancer of
the Uterus | William O. Stevenson |
| The Ontario Hospital for Mental Diseases . | Edward Ryan. |
| Appendicitis | J. B. Fraser. |

The Public Health Journal, January, 1913:

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| The Open Window | J. F. Goodchild. |
| Rockwork and Plants for the Rock Garden . | R. R. Todd. |
| Militia Sanitation, A Civil Asset . . . | Lorne Drum. |
| The Hygiene of Building from an English
Standpoint | P. L. Marks. |
| The Prevention of Tuberculosis . . . | J. H. Elliott. |
| The Value of a Health Laboratory to a
Municipality | G. T. Masmith |
| The International Hygiene Exhibition of
Dresden | J. F. Honsberger. |

The Canadian Journal of Medicine and Surgery, February, 1913:

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| Treatment of Diffuse Septic Peritonitis . | H. A. Bruce. |
| Medical Aspects of Septic Peritonitis . | John Ferguson. |
| General Peritonitis in Gynecological and
Obstetrical Practice | B. P. Watson. |
| General Septic Peritonitis. | S. M. Hay. |

Dominion Medical Monthly, February, 1913:

- Cæsarean Section—With the Report of
Two Successful Cases J. P. Kennedy.

The Canada Lancet, January, 1913:

- A Medical Slander Case in Upper Canada,
eighty-five years ago . . . Hon. Justice Riddell.
The Surgical Treatment of Arthritis of
Infectious Origin and the methods
Appropriate to Special Cases . . C. F. Painter.
Scrotal Tumours S. M. Hay.
The Carrier Question. . . . W. H. Hill.

L'Union Médicale du Canada, January, 1913:

- Incision Obligée Transversale dans les
opérations sur la Vésicule et les Voies
Biliaires M. A. Marien.
De l'Importance de la Perméabilité Rénale
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Contribution à l'Etude des Fluxions et des
Alternances Morbides . . . G. Archambault.
Les Devoirs du Médecin auprès d'une
Parturiente E. A. René de Cotret.

Medical Societies

KINGSTON MEDICAL AND SURGICAL SOCIETY

THE Kingston Medical and Surgical Society held its annual meeting on Friday, January 10th, under the presidency of Dr. James Third, fifteen members being present. On this occasion, the Widal reaction in the diagnosis of typhoid fever was discussed by Drs. Etherington, MacCallum, Gardiner, Third, Day, and W. T. Connell. The officers elected for the year 1913 are: president, Dr. W. G. Anglin; vice-president, Dr. R. J. Gardiner; secretary, Dr. W. T. Connell; treasurer, Dr. G. W. Mylks.

MONTREAL MEDICO-CHIRURGICAL SOCIETY

THE sixth regular meeting of the society was held on Friday, December 20th, 1912, Dr. D. J. Evans, president, in the chair.

LIVING CASES: 1. Free transplantation of fragments of tibia into cranial defect. By Dr. E. W. Archibald. Dr. F. A. C. Scrimger read the report of this case and presented the patient for Dr. Archibald. The case will be reported in full in a coming number of this JOURNAL.

DISCUSSION. Dr. C. A. Peters: Might I ask if there is any reason for the nocturnal convulsions in this case. A relative of mine was injured just in that way at the age of three, and twenty-eight years later Dr. Armstrong operated on her. During all that time she frequently had nocturnal convulsions; since the operation she has had very few and none during the last three years.

Dr. F. A. C. Scrimger: Unfortunately I only read the notes of this case and do not know any other particulars of the history, so am unable to throw any light on why these convulsions should be nocturnal.

2. Adult with extreme deformity following hip disease relieved by subtrochanteric osteotomy. Living case presented by Dr. J. Appleton Nutter.

This woman, aged twenty-eight years, suffered long in early life from hip disease, which left her hideously deformed. She at that time lived in Glasgow and as a child of nine years was operated on by Ogston "to stiffen the hip." She presented herself to me last summer for relief of the deformity which she had borne for more than twenty years. At that time she was wearing a boot with a cork sole nearly four inches high, which, however, did not give her leg the required length. Her left hip was ankylosed in a position of right-angled flexion and 20° adduction, while the left leg presented about one and one-quarter inches actual shortening. She could with difficulty stand erect by assuming an attitude of enormous lordosis; the photographs being passed around show this plainly. An x-ray taken by Dr. Wilkins showed bony ankylosis of the left hip-joint, the head and neck of the femur practically gone (probably largely as the result of operative interference), and the disease apparently long since healed. This last was confirmed clinically by the absence of spasm or tenderness on attempting to mobilize the hip-joint. She at that time gave a history of recent nephritis with generalized cedema and suffered almost continually from back-ache. Her urine showed a thick ring of albumin and numerous

hyaline and granular casts. She was admitted to the orthopædic service of the Montreal General Hospital through the courtesy of Dr. MacKenzie Forbes, to whom I am indebted for kind advice, and for some time was kept under observation. It was finally decided that she could stand the strain of a general anæsthetic without undue risk. In cases presenting so much flexion at the hip, an osteotomy through the femoral neck (the Adams operation) is usually chosen. By this procedure the short, upper fragment cannot project anteriorly when the flexion is overcome. In the present case, however, the head and neck had practically disappeared and time was of great moment, hence a simple Gant's (linear) osteotomy below the great trochanter was decided upon. This I did under gas and oxygen anæsthesia, experiencing no difficulty in overcoming the deformity. The patient was put in an extension apparatus and a long plaster spica applied. I was able to substitute 10° adduction for the 20° adduction, and 30° flexion for the 90° she formerly had. It is well known in this connexion that full extension in an ankylosed hip is very troublesome when the patient is sitting or is going up and down stairs, hence I did not regret leaving a small amount of flexion.

In a month and a half the patient began to get about on crutches and soon afterwards could put weight upon her left leg. Her convalescence was uneventful. She now has three-eighths of an inch apparent shortening in place of the original three and a half or four inches, and walks best with only one-eighth of an inch thickening in the sole of her left boot. Her actual shortening remains as before, about one and a quarter inches. Her figure is nearly normal and her gait very good indeed, as one can easily see. A point of great interest has been the improvement in her kidney function following the operation upon her hip. Several months after the osteotomy I referred her to Dr. Gordon's clinic and was much surprised to receive a report that her urine was in a practically normal condition. It will be remembered that she presented a distressing lordosis before operation, which was relieved by the osteotomy. No doubt her unnatural position of standing had the mechanical effect of putting an almost continual strain upon the kidneys, hence the albumin and casts in her urine.

DISCUSSION. Dr. Wm. Hutchinson: The fact that albumin was found in the urine in this case is very interesting in view of some work recently done on the "Albuminuria of Lordosis." In one of the large orthopædic clinics on the continent, work was done on this subject and it was shown that patients suffering from lordo-

sis very frequently had albumin in the urine. It seems to me that the albuminuria is due to pressure exerted on the kidney by the abnormal position of the spine. It is a well-known fact that rough palpation of the kidney will produce a temporary albuminuria. In view of the fact that a very large percentage of cases of lordosis suffer from albuminuria, and many times it is accompanied by casts, it is advisable to correct the lordosis as soon as possible, as serious disease of the kidneys is liable to result.

Dr. Nutter: I am very glad to hear what Dr. Hutchinson says with regard to the occurrence of albuminuria in patients with lordosis. The improvement in the function of the kidneys in this case was a surprise to me, all the more so for the reason that it was some weeks before we came to the conclusion that it was wise to risk an anæsthetic.

PATHOLOGICAL SPECIMENS: Exhibited by Dr. E. J. Mullally.

1. Epithelioma of œsophagus. The specimen shows a lozenge-shaped ulcer of the œsophagus behind the bifurcation of the trachea. The tumour has spread into the right bronchus and set up a septic bronchial pneumonia of great intensity. On the other side there was a diffuse and much marked septic inflammation. The lumbar glands are full of pus. (From a male, aged fifty-eight, who had been ill with characteristic symptoms for six months.)

2. Carcinoma of the hepatic flexure. From a female, aged forty-three, the specimen was removed during life and shows a large growth of low papillary form with central ulceration, the floor of which is formed by a cavity almost large enough to receive the fist. This contained foul material, and is walled in by dense fibrous tissue infiltrated by tumour. There was extensive involvement of the mesentery.

3. Impacted fracture of neck and femur. From a female, aged sixty-four years. The specimen has been sawn in half to show the structure of the lesion. There was very firm union which proved to be fibrous, not osseous.

CASE REPORT: Bone metastasis in cancer of the breast. By Dr. J. M. Elder.

DISCUSSION. Dr. A. R. Pennoyer: I am reminded of a very interesting case which was under my care in 1910; it differed from this in the very much earlier occurrence of secondary growth. The patient was a woman between thirty and thirty-five, unmarried, who came to the hospital for relief of pain in the hip. Examination revealed very little until in the routine examination of the case a small, hard, unmistakably malignant nodule in the right breast

was discovered. This she had noticed for only a few months. X-ray showed very beautifully a secondary growth in the upper end of the femur. She was in the hospital a good many months and died from the disease. This was the earliest case of bone metastasis I ever saw, in fact the primary tumour certainly had not been there over nine months and still she had this secondary growth giving her pain in the hip.

PAPER. The paper of the evening, on "Clinical and Experimental Observations on Chronic Pancreatitis and Bile Pressure," by Dr. E. W. Archibald, was read by Dr. Scrimger, and as Dr. Archibald was unable to be present there was no discussion.

THE seventh regular meeting of the society was held Friday evening, January 3rd, 1913, Dr. D. J. Evans, president, in the chair.

PATHOLOGICAL SPECIMENS: Exhibited by Dr. A. M. Burgess.

1. Cancer of the uterus. Last August I received curettings from this patient and was able to diagnose in the mass of blood clot a few areas around some vessels which consisted of large cells showing numerous mitotic figures. The rest of the section was blood clot and necrotic tissue. The uterus was subsequently removed and the specimen here shows an elongated tumour filling the body of the uterus and has a perfectly smooth surface. This differs from the ordinary cancer of the uterus, both adenocarcinoma and epidermoid. There are two common types: that of the cervix you are all familiar with, it usually affects the vaginal wall and there is a great deal of scar tissue and stroma formation associated with it. The other, adenocarcinoma of the fundus, is usually a fungating mass. This tumour is of neither type, but invades the wall only slightly, and has a perfectly smooth surface.

2. An interesting specimen of a general infection of the kidney. This patient was sick for about six weeks. She had a fall on the back of a chair which struck her across the abdomen. Eventually she developed signs suggestive of meningitis. At autopsy we found several small abscesses in the cerebral cortex, a "malignant" endocarditis with ulceration of one aortic valve cusp, infarcts of the spleen, and both kidneys in the condition in which you see this one. Throughout the cortex and pyramids there are minute abscesses. The blood, abscesses of the brain, and the vegetations in the heart valve, all yielded pure culture of staphylococcus aureus. There is a mass of blood clot in the pelvis of the kidney which shows how blood may pour in large quantities into the urine.

3. Carcinoma of the liver. I show this specimen because it is apparently a primary carcinoma of the liver. This inferred (1) because we could not find any origin for it; (2) it is confined to one area with small apparent outgrowths in the other parts of the liver, and (3) morphologically the cells resemble bile-duct epithelium. The history is of a typical carcinoma—loss of weight, weakness, etc. From the frozen section we were able to diagnose carcinoma, apparently resembling bile-duct carcinoma. Therefore this is probably cancer of the liver which is primary, arising from bile-duct epithelioma. There are two main types of primary cancer, the so-called malignant adenoma, which arises from true liver cells and which may show in these cells perfectly well-defined bile capillaries, or the cells themselves may even produce bile; and the other type—of which this may be an example—a cancer arising from the bile duct epithelium. In rare cases carcinoma of the liver resembles cirrhosis and is a very diffuse growth.

4. Case of a woman aged forty-two, complaining of loss of weight, sudden jaundice and abdominal symptoms with distension. Fluid was found in the abdomen. She was sick for six weeks, and three weeks before admission the jaundice appeared and she was operated on with a supposed diagnosis of gall stones. The gall bladder was found distended and the cystic duct apparently obliterated. There was found a hard mass in or near the head of the pancreas, and also a cyst which was supposed to be in the head of the pancreas. The gall bladder was removed, a rubber tube inserted, and the wound stitched up. Twenty-four hours later she bled freely and died from hæmorrhage. We found at autopsy the abdominal cavity filled with fluid blood and blood clot. The specimen shows the tube filled with blood clot leading down to apparently what was the common bile duct, but there seemed to be an erosion between this bile duct at the base of the tube and one of the large vessels of the portal system. We found all the bile ducts distended with a mixture of clotted blood and bile throughout the liver. We were unable to follow the common bile duct through the Ampulla of Vater and on dissection we found it obliterated by a small nodule about 2 cm. in diameter which apparently in the gross is a carcinoma of the Ampulla of Vater. It is interesting to note that the pancreatic duct, the duct of Virsung, passes right over this mass and is not at all occluded, while the common bile duct is completely occluded, thus giving rise to the marked jaundice and distension of the bile passages. I made a frozen section of this tumour and find it to be an adenocarcinoma of a very scirrhus type.

DISCUSSION. Dr. F. A. L. Lockhart: I would like to ask Dr. Burgess a little about the history of this uterine tumour, and also about the structure of the tumour itself.

Dr. Burgess: I cannot give you the history of the patient. The structure of the tumour was soft, yielding, and microscopically consisted of large masses of epithelial-like cells which were undergoing mitosis very freely. It is a rapidly growing tumour, but one which instead of extensively infiltrating the uterine wall has grown into and filled the cavity of the uterus, as may be seen in the specimen.

CASE REPORTS: L. Appendicitis Epiploica, by Dr. C. B. Keenan.

DISCUSSION. Dr. A. M. Burgess: There recently occurred a case in the Montreal General Hospital in which at autopsy there was a very marked acute colitis of the ulcerative type and one of the ulcers had perforated (it was in the sigmoid) into the fatty tissue and formed a little abscess in which was a concretion about 4 or 5 mm. in diameter. I should think that, if the colitis had subsequently healed, this would have been a condition such as Dr. Keenan has spoken about to-night.

Dr. C. B. Keenan: As regards Dr. Burgess's specimen, I think if recovery had taken place there would have been a sessile mass. The interesting thing in these cases is the pedicle, just a thread, so to speak, and about an inch long. As to the comparative anatomy, I have not looked this up, and as to whether it has anything to do with diverticulitis of the colon I hardly know. Of course Bland, Sutton, and others, state that a diverticulum extends into an appendix epiploica, but as far as I remember every appendix epiploica has a pedicle, a long one and a very slim one, and how a diverticulum is going to extend into that and through it and not break it at any point I could not say, so I cannot see any connexion between the two.

2. High enterostomy in post-operative diffuse-spreading peritonitis, by Dr. W. W. Chipman.

DISCUSSION. Dr. F. A. L. Lockhart: We should congratulate Dr. Chipman on the excellent result he has had in this case, and although his first result was not entirely a success I think the good result of the latter case is due entirely to his treatment. We all know how desperate such cases are.

Dr. E. W. Archibald: I have been very much interested indeed in this report of Dr. Chipman's, and I would like to congratulate him on the result. Clearly he would have had the same success in the first case, if it had not been for the unfortunate complication

of the infection in the pelvis. Looking back I can recall several cases where such a procedure as this might have saved the patients. One sees not rarely cases of acute peritoneal infection die in the course of a few days with persisting signs of obstruction and also signs of peritonitis, and it is often difficult to decide to what the end was really due, whether to the peritoneal infection or the toxæmia from the obstruction. It would seem that at least a number of such cases really die of a toxæmia from the obstruction rather than from the infection. In Dr. Chipman's patient the result of the operation showed that her very grave condition was due to the obstruction toxæmia rather than to the streptococcus toxæmia. She immediately improved when the tube was put in. I was present in Ottawa when McKenna's paper was read, and I decided to try it if the occasion arose. Since that time I have tried it in two cases. I remember two previous cases in which I performed enterostomy for a similar condition, but not purposely high up. In both I opened the abdomen and took a chance coil of small bowel which was well down in the jejunum or the ileum. In these two cases the procedure had practically no effect at all, the bowel remaining flaccid, nothing came through it and the patients died. But I have to report that the two other cases in which I introduced the tube into the jejunum, close to the duodenum, died also. I report these particularly in order to show that in some instances at least, the method cannot be counted upon with certainty. These patients were also *in extremis*. There were post operative adynamic obstructions with moderate peritoneal infection. In both I introduced a Paul's tube. In one a coil of the bowel was brought out upon the abdomen, in the other only an inch or so. In neither of these cases did I succeed in getting that free drainage which I hoped for; the amount evacuated was clearly insufficient. The exhibition of hormonal in one was without effect.

The work of Hartwell, published in the *American Journal of Medical Sciences* last March, went to show fairly conclusively that the toxæmia in such cases is very largely original in the duodenum and upper jejunum. McKenna advises washing out with saline so as to get rid of these toxins. The whole subject is fascinating because it promises so much and yet is still rather unclear.

Dr. C. B. Keenan: I have not had any case of post operative peritonitis, but many cases where this condition was secondary to disease of some of the abdominal viscera. Here I have come to look on the condition of the bowels, that is, whether they are moving or not, as the chief factor in prognosis. For the paralytic condition

of the bowels, I commenced at first by draining through large openings then changing to very small ones, and have now come to depend upon the use of the various purgatives to combat this condition.

PAPER: Re-infection in syphilis. By Dr. R. P. Campbell and Dr. F. S. Patch. Dr. Patch read the paper.

Dr. R. P. Campbell: Dr. Patch and I have been very much interested in these cases. There are still some other patients in the clinic who might come into this category, but they have not been brought to a conclusion yet. The whole question hinges on immunity. It is probable that in these animal parasitic diseases, e.g., malaria, etc., individuals are immune simply because the causative organisms are still present in the individual. Take the African, for example, he does not suffer from malaria simply because he has it always with him. In the past the theory was that once a man had syphilis he always had it, and it is only recently, when our treatment has been more thorough and we have gained new knowledge along lines of infection, that these views have changed. The cases which Dr. Patch has reported to-night really represent but one question and, that is, these sores are either primary sores or they are tertiary sores. You can leave out super-infection and auto-infection, which are more or less academic and entirely theoretical. Neither of these cases can be put down as tertiary lesions, the fact that in each case the spirochaetes were so numerous is unmistakable and would justify the diagnosis of a second infection of the disease. A further interesting point is with regard to the efficacy of 606. In one case the patient had received but a single injection of salvarsan and that was given him in the late secondaries, but in spite of this he seems to have been cured, so much so that a short time afterwards he was capable of re-infection, and so far as animal experimentation goes re-infection is quite impossible so long as there are any organisms in the individual.

HALIFAX MEDICAL SOCIETY

A MEETING of the Halifax Medical Society was held December 16th, under the presidency of Dr. E. A. Kirkpatrick. On this occasion, an interesting paper was given by Dr. John Stewart, a former president of the Canadian Medical Association. Dr. Stewart's address was entitled, "Cases from an old surgical note book with comments," and in it he reviewed cases seen with Lister, when he was acting as that great teacher's house-surgeon and assistant.